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ABSTRACT

This publication contains the following articles: (1) "A Pilot Study of the Relationship between Co-Dependency and Recreation Using Women with Histories of Domestic Violence" (Pamela E. Foti and Lori S. Gelvin); (2) "Discretionary Time Use and the Chronically Mentally Ill" (Thomas K. Skalko); (3) "Therapeutic Recreation and Family Therapy: A Needs Analysis of Perceived Needs of Wives of Stroke Patients" (Roy H. Olsson, Jr., Sharon G. Rosenthal, Leonard O. Greninger, Martha J. Pituch and Eileen S. Metress); (4) "Identification of Competencies Needed in Gerontological Recreation Courses: An Application of the Delphi Technique" (Barbara A. Hawkins and David R. Austin); (5) "Baseline Gender Norms and Cohort Comparisons for Neulinger's 'What Am I Doing?' Instrument" (John T. Hultsman and David R. Black); (6) "Baseline Age Norms for Neulinger's 'What Am I Doing?' Instrument" (John T. Hultsman and David R. Black); (7) "Older Adults with Developmental Disabilities/Mental Retardation: A Research Agenda for An Emerging Sub-Population" (Ann M. Rancourt); (8) "An Emerging Challenge: Serving Older Adults with Mental Retardation" (Rosangela Boyd and Ann James); (9) "Leisure Interests and Perceptions of Group Home Residents" (Patricia Barrett Malik); (10) "The Relationship between Recreation Participation and Functional Skill Development in Young People with Mental Retardation" (Candace Ashton-Shaeffer and Douglas A. (Kleiber); and (11) "Automating a Community Resource Directory: An 'Information Age' Tool for Discharge Planning" (Daniel D. Ferguson and Linda Hutchinson-Troyer). (JD)

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# ANNUAL IN THERAPEUTIC RECREATION

Volume One, 1990

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THERAPEUTIC RECREATION

Volume One, 1990

The Annual is a joint venture of the American Association for Leisure and Recreation, The American Therapeutic Recreation Association and the University of Missouri-Columbia Department of Parks, Recreation and Tourism

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The Department of Parks, Recreation and Tourism at the University of Missouri-Columbia is one of the largest departments in the midwest. The department has a rich tradition of providing quality undergraduate and graduate education. The department hosts numerous workshops, seminars, institutes and conferences and coordinates the largest continuing education program in therapeutic recreation in the nation. For more information write: Department of Parks, Recreation and Tourism, 624 Clark Hall, University of Missouri-Columbia, Columbia, MO 65211.

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# Foreword

This inaugural issue of the *Annual in Therapeutic Recreation* represents a unique coalition among practitioners, researchers, advocates, and educators in the field of therapeutic recreation. We wish to publicly acknowledge the vision and support of our organizational co-sponsors, AALR and ATRA, without whom the dream for the *Annual* would have not been realized. Similarly, we wish to express our appreciation to the faculty and administrators of the Department of Parks, Recreation and Tourism and The School of Natural Resources in the College of Agriculture at the University of Missouri-Columbia for their encouragement and support of our efforts.

Our associate editors deserve special recognition for having worked so diligently during the review process. In addition, our contributors worked cooperatively and patiently with us to ensure that each manuscript was developed to its fullest potential. Through their collective efforts this inaugural issue has been polished and shaped into an excellent compilation of innovative contributions to the professional literature in therapeutic recreation.

There are always a number of other specialists involved in the development and production of a new publication. A number of professionals served as field reviewers to help augment the expertise of our associate editors. We are particularly indebted to Professors Marianne Frauenknecht and Teri A. Loughead of Purdue University for their time and expertise donated during the review process. Additionally, a very special thanks goes to our production editor, Ms. Paula J. Belyea, who worked tirelessly during the design and production phase.

Finally, we wish to express our gratitude for the opportunity to help develop the *Annual.* We believe that the vitality of a profession is measured by the excellence of its research and literature. We are pledged to honor the trust that has been bestowed upon us as co-editors and ensure that the *Annual* serves to advance the field of therapeutic recreation. We are pleased to present Volume One to you.

Michael E. Crawford, Re.D., CTRS
Co-editor

Jaclyn A. Card, Ph.D.
Co-editor

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# A Pilot Study of the Relationship Between Co-Dependency and Recreation Using Women with Histories of Domestic Violence

Pamela E. Foti, Ph.D.
Lori S. Gelvin, M.S.

Therapeutic recreation has proven to be a valuable intervention in a variety of rehabilitation settings. In many cases, an important prerequisite to using the intervention is evidence of dysfunctional recreation/leisure behavior patterns.

Co-dependency is a behavioral condition that is currently receiving a great deal of attention regarding its causes, effects, and treatments. The use of recreational therapy in the rehabilitation of this condition has great potential due to the therapeutic focus on self-interests, personal achievements, and improvement of self-worth. A question is whether or not individuals who exhibit co-dependent behavior also display dysfunction in their recreation/leisure behavior patterns.

This study investigates the relationship between co-dependency and recreation/leisure behavior using women with histories of domestic violence as subjects. The study tests the hypothesis that women who have dysfunctional co-dependency will exhibit dysfunctional recreation/leisure behavior patterns. There are two objectives in the study. The first is to determine if women with histories of domestic violence exhibit dysfunctional co-dependent behaviors. The second is to determine if the relationship between dysfunctional, co-dependent behaviors and dysfunctional recreation/leisure behavior patterns is significant enough to warrant the intervention of recreational therapy.

The theoretical base of the study brings together work in the fields of co-dependency, domestic violence and recreation. In particular, the research design is based on the similarity between the characteristics of women with histories of domestic violence and the characteristics of co-dependency, the treatments for domestic violence and co-dependency, and the benefits gained through participation in recreation/leisure activities.

## *Co-Dependency*

Co-dependency began to receive recognition during the late 1970s in Minnesota treatment centers (Beattie, 1987). Co-dependency, or the co-dependent, has been defined by researchers as:

1. "All persons who (1) are in a love or marriage relationship with an alcoholic, (2) have one or more alcoholic parents, or (3) grew up in an emotionally suppressive family" (Wegscheider-Cruse, 1984, p.l).
2. "A pattern of learned behaviors, feelings and beliefs ...a dependence on people and things outside the self along with neglect of the self to the point of having little self-identity" (Smalley, 1987, p.125).
3. "An emotional, psychological, and behavioral condition that develops as a result of an individual's prolonged exposure to, and practice of, a set of oppressive rules - rules which prevent the open expression of personal and interpersonal problems" (Subby & Friel, 1984, p.26).

While researchers have different definitions and philosophies as to the systems co-dependency affects or whether alcoholism is involved, they do agree that persons in co-dependent relationships display certain behaviors. These behaviors include external referencing, caretaking, frozen feelings, learned helplessness, guilt, low self-esteem, low self worth, blaming, denial/avoidance, boundary distortion, lack of self-confidence, passiveness and negative self-talk (Beattie, 1987; Cermak, 1986; Larsen, 1983; Lerner, 1983; Pearson, 1988; Schaef, 1985; Smalley, 1987; Subby & Friel, 1984).

To date, treatment of co-dependency has focused primarily on traditional psychotherapy approaches or group therapy/support groups using the Twelve Step program designed by Alcoholics Anonymous. Desirable outcomes of treatment include increasing self-confidence, self-esteem, and self-worth, as well as removing the external focus and fostering self-interests.

*Dr. Foti is an assistant professor in the Department of Health, Physical Education and Recreation at Northern Arizona University. Ms. Gelvin is a counselor at the Center Against Domestic Violence in Flagstaff, Arizona.*

### *Domestic Violence*

Since the 1970s, there has been a growing awareness of the problem of domestic violence in the United States as a major social issue. It is estimated that over 1.8 million women are severely battered each year by a man with whom they live (Gondolf, 1985; Straus, Gelles, & Steinmetz, 1980). Today, researchers estimate that in at least one out of every ten families a woman is assaulted once, or more, by a man with whom she lives (Rouse, 1986). Other studies have estimated this number to be as high as one out of every four families (Gemmill, 1982).

To further intensify the situation, it has been found that a battering incident is rarely an isolated occurrence. According to a 1982 survey of women in Texas, 19% of the women who were abused during the previous year, and 25% of the women abused during their lifetime, had been victimized at least once a week (Center for Women Policy Studies, 1985).

While to many people the solution to domestic violence appears to be for the victim to simply leave the situation, studies suggest that women who are involved in or have been involved in abusive relationships see themselves as having few options for removing themselves from their situation. The victims of domestic violence experience psychological paralysis due to the violent relationship and they frequently have a lack of job skills, employment, financial support, and emotional support to leave their situation (Aguirre, 1985; Bentzel & York, 1988). In addition, a variety of personality characteristics are often found in women who have a history of domestic violence relationships and these further inhibit the women's ability to leave. These characteristics include reserve and caution in emotional expression, low ego strength, a feeling of being unable to cope, shyness, difficulty with self expression and low levels of self-sentiment (Straus, 1977). Compounding the situation, the abusive partner frequently sabotages the woman's hopes for independence by isolating her from family and friends, banishing her to the home, and removing forms of transportation. The woman is threatened with "keeping the secret" or facing verbal, emotional, physical, and/or sexual abuse from the batterer (Grusznski, Brink, & Edleson, 1988; Iyer, 1980).

The primary approach in treating women involved in domestic violence relationships has been to present alternatives and options for living independently, to increase the women's mastery of the environment, to encourage emotional expression, to offer positive role models, and to assist in setting goals and to decrease vulnerability (Star, Clark, Goetz, & O'Malia, 1981). Some research on domestic violence relationships suggest that as the woman gains self-respect, self-esteem, and additional social contacts, she begins to need the unhealthy relationship less. These researchers contend that the way to change the dependent behavior is not through focus on the partner, but to concentrate efforts on raising the individual's self-confidence, self-esteem and self-worth (Long, 1986; Pearson, 1988).

### *The Link Between Recreation and Leisure*

The benefits of recreation and leisure activities, from both a therapeutic and preventive viewpoint, are well documented in the literature. It is these benefits that may accrue to the participant that are the link in treating co-dependency in women with histories of domestic violence.

For example, research by Kenyon (1968) led to the conclusion that sport and leisure activities are important for what they can teach an individual about him/herself, for the range of emotions that are expressed in participation, and for the full development and socialization of an individual. Kenyon's findings have been supported in study after study; recreation is a positive experience and an integral component in an individual's life (Kelly, 1985). In fact, research has shown a definite link between life satisfaction, mental/physical/social health, and recreation (Iso-Ahola & Weissinger, 1984).

Gray's (1984) model of recreation presents a good overview of the therapeutic and preventative values of recreation. Gray argued that recreation is a means of escape for people including "the ability to follow one's own inclinations, to avoid constraint, to respond to the wishes of the moment and to lay aside day-to-day cares" (p.63). He stated that recreation allows an individual to experience feelings of competence and improved self-worth; it may be a source of improved self-image through a process of self-validation, self-discovery, and personal growth. In fact, in many cases, recreation is the one remaining component in the 20th-century world that allows an individual "...to feel a part of nature and to experience the peace and contentment, or fear and awe, of the natural world"(p. 63). Recreation can also be a social experience for many by providing an opportunity for positive feedback and applause from peers and by allowing for communion, love, friendship, and identification with a group. Finally, recreation is a highly personal and emotional experience. Many emotions surface over

the course of a recreation experience; participants feel refreshed, excited, free, powerful, creative, harmonious, and competent.

In terms of this research, the literature demonstrates three important considerations. First, recreation fosters the development of personal characteristics that appear to be deficient in individuals who display co-dependent behaviors. Second, women who are currently involved in or have been involved in domestic violence relationships display behaviors similar to those attributed to co-dependents. Lastly, women with histories of domestic violence relationships provide an appropriate study population for investigation of the relationship between recreation/leisure behaviors and co-dependency.

## Method

The research is designed as a pilot study for future work in the actual administration of recreational therapy as an intervention. As a pilot study, the research includes a small sample size with a greater possibility of standard error. The statistical analysis is not intended to be predictive, but rather to describe the future direction for application of the intervention.

### *Subjects*

The population selected for study was women with a history of domestic violence who were seeking refuge at the Flagstaff Women's Shelter, Flagstaff, Arizona. Subjects' mean age was 29.5 years; 60% of the respondents were between the ages of 21 and 30 years. The ethnic background of the subjects was approximately 50% white and 50% minority with the largest minority group being Native American (45.2%), including Navajo, Hopi, and Apache women.

For many of the subjects, marital status changed when they entered the Shelter - from married (32.3%) to separated (35.5%). While all but one of the subjects was involved in a relationship prior to entering the Shelter, many of the relationships were not legally formed and 16.1% of the subjects considered themselves single upon entering the Shelter. Over 80% of the subjects have children with a mean of 2.6 children per woman.

While one respondent has no formal schooling, the mean years of education for the subjects was 10.7 years. The majority of subjects (64.5%) were not employed. Of those who were employed (35.5%), over 80% worked at a part-time job. The vast majority of working respondents were employed in the service industry; one respondent was employed as a school teacher.

### *Procedure*

To test the study's hypothesis that women who have dysfunctional co-dependency will exhibit dysfunctional recreation/leisure behavior patterns, two self-administered surveys were employed. The first survey is the Friel Co-Dependency Assessment Inventory; the second is a recreation/leisure behavior questionnaire. A total of 31 women completed the survey between March 1-July 31, 1989. The respondents were asked to volunteer for the research project as part of their two day orientation program and signed a release form prior to participation. In no instance did a women staying at the Shelter refuse to participate in the study. Data were analyzed using "Systat". The primary forms of analysis were descriptive statistics, crosstabulations, and correlations.

### *Instruments*

Co-dependency of the subjects was assessed using a modified version of the Friel Co-Dependency Assessment Inventory. The Friel Inventory was evaluated by Wright (1989) for validity and reliability. Wright found that the inventory was able to distinguish clearly between control and experimental samples at the $p<.002$ level. In this study, the only modification to the instrument was the inclusion of a 5-point Likert scale instead of a true/false response selection. In the survey, the odd numbered items were statements reflecting healthy attitudes, actions, or characteristics, while the even numbered statements portrayed unhealthy attitudes, actions, or characteristics. The respondent was asked to answer each statement honestly and circle the word which best described her feelings. The women were told that there were no right or wrong answers.

The second survey instrument was a leisure behavior questionnaire that included the following areas of inquiry: leisure activities (currently and when not involved in a relationship), most enjoyable activities, expected changes in recreation/leisure patterns, participation in recreation/leisure activities during relationships, and importance of recreation or leisure activities to lives. In addition, the questionnaire collected basic demographic information about the respondents. The questionnaire

was pre-tested at Northern Arizona University and found to be valid and reliable across responses from three semesters of classes in describing an individual's recreation/leisure behavior at the $p<.005$ level.

### *Study Assumptions*

The study includes two assumptions. First, the study assumes that women with histories of domestic violence exhibit *some* level of co-dependent behavior. This assumption is based on the information obtained in the literature review. For example, the literature noted that the characteristics of women with histories of domestic violence are as follows: reserve and caution in emotional expression, low ego strength, feelings of being unable to cope, difficulty in self-expression, low levels of self-sentiment, and lack of self-worth and self-esteem. The characteristics of co-dependency as described in the literature are as follows: learned helplessness, low self-esteem and self-worth, passiveness, negative self-talk, and external referencing.

Second, the study assumes that individuals who are dysfunctionally co-dependent are unlikely to add recreation/leisure behaviors to their lives on their own initiative. Drawing upon the information gained in the literature review, it was found that co-dependents have problems with external referencing, excessive caretaking, avoidance of self-issues, and boundary distortion. Many of these behaviors make it difficult for individuals to take the initiative in adding activities to their lives.

## Results

### *Co-Dependency of the Subjects*

The co-dependency index of each subject was recorded using the Friel Inventory. The scores on the inventory ranged from 240 (high) to 56 (low) out of a possible range of 266 (high) to 0 (low). The mean, median, and mode for the distribution was 140 with a standard deviation of 40.1. The co-dependency scores for the population were divided into functional and dysfunctional ratings. All of the respondents displayed some level of co- dependency and over 60% of the women were co-dependent at the dysfunctional level. The distribution for the population is displayed in Table 1.

Table 1
*Co-Dependency Ratings and Scores of Subjects from Friel Inventory*

| Rating | Score | N | % |
|---|---|---|---|
| Functional | 0-135 | 12 | 38.7% |
| Dysfunctional | 136-266 | 19 | 61.3% |

### *Recreation/Leisure Behavior Patterns of the Subjects*

The recreation/leisure behavior pattern of each subject was described through her current activities (indoor and outdoor) and her total activities (indoor, outdoor, and total). It was found that 100% of the respondents participated in some indoor activities and 80.6% participated in some outdoor activities. The most popular indoor activities (by participation and mean days of participation) were as follows: watching TV, listening to music, reading, socializing at home, and relaxing. Table 2 shows the major indoor activities by participation, by participation when not involved in a relationship, and by mean days of participation per year.

In terms of outdoor activities, the most popular ones (by participation) were as follows: walking, picnicking, and visiting historic sites. The most popular outdoor activities (by mean participation) were as follows: walking, jogging, horseback riding, and gardening (See Table 3).

The number of activities participated in (indoor, outdoor, and total) was calculated for each subject. Participation in number of activities was divided into LOW and HIGH. The mean participation in indoor activities was 8.3 activities per respondent. The majority of respondents (61.3%) participated in less than nine activities (LOW) and 38.7% participated in nine or more activities (HIGH).

For outdoor activities the mean was significantly lower ($M = 5.3$ activities per respondent). The distribution of the population was: 54.8% participated in less than six activities (LOW) and 45.2% participated in five or more activities (HIGH).

For total activities, the mean was 13.6 activities per respondent. This was divided between 54.8% participating in less than 14 activities (LOW) and 45.2% participating in 13 or more activities (HIGH).

Table 2
*Indoor Recreation/Leisure Behavior Activities*

| Activity | Participate | Participate When Not Involved | Mean Days of Participation Per Year |
|---|---|---|---|
| Watch TV | 96.8% | 80.6% | 247.7 |
| Music | 81.1% | 96.8% | 260.7 |
| Reading | 67.7% | 87.1% | 169.9 |
| Home-Soc | 58.1% | 64.5% | 52.4 |
| Relaxing | 54.8% | 77.4% | 96.9 |
| Movies | 48.4% | 71.0% | 10.5 |
| Writing | 45.2% | 77.4% | 25.7 |
| Relative-Soc | 45.2% | 83.9% | 30.4 |
| Indoor Games | 41.9% | 64.5% | 47.7 |
| Hobbies | 41.9% | 64.5% | 31.1 |
| Bars-Soc | 35.5% | 35.5% | 28.4 |
| Singing | 23.6% | 48.4% | 30.9 |
| Chance Games | 22.6% | 19.4% | 13.3 |
| Billiards | 22.6% | 29.0% | 7.4 |
| Dancing | 22.6% | 61.3% | 12.3 |

Table 3
*Outdoor Recreation/Leisure Behavior Activities*

| Activity | Participate | Participate When Not Involved | Mean Days of Participation Per Year |
|---|---|---|---|
| Walking | 51.6% | 93.5% | 116.3 |
| Picnicking | 41.9% | 93.5% | 14.1 |
| Historic Sites | 38.7% | 35.5% | 3.9 |
| Fishing | 32.3% | 35.5% | 7.0 |
| Camping | 32.3% | 64.5% | 10.0 |
| Outdoor Events | 32.3% | 54.8% | 2.4 |
| Swimming | 29.0% | 64.5% | 11.0 |
| Sunbathing | 22.6% | 38.7% | 13.8 |
| Bicycling | 22.6% | 61.3% | 15.4 |
| Hiking | 22.6% | 58.1% | 11.2 |
| Zoos | 22.6% | 38.7% | 0.4 |
| Horse Riding | 19.4% | 45.2% | 22.6 |
| Nature Acts | 19.4% | 22.6% | 5.2 |
| Spectator | 19.4% | 41.9% | 1.4 |
| Gardening | 16.1% | 51.6% | 18.0 |
| Jogging | 12.9% | 61.3% | 33.2 |

### *The Relationship Between Co-Dependency and Leisure Behavior*

One of the major assumptions of the study was that women who have a high co-dependency index exhibit a more dysfunctional leisure behavior pattern. And, given the benefits of leisure activities, recreational therapy would be a viable intervention for treating the dysfunctional co-dependent. Therefore, an essential element of the study was the relationship between co-dependency and leisure behavior patterns. This was examined through self-perception, through crosstabulations, and through correlations between number of activities and co-dependency scores.

For self-perception, the respondents were asked about possible changes in their leisure or recreation over the next year. The majority (80.6%) indicated that they anticipated changes in their leisure behavior over the next year. When asked about the type of changes, the most frequent response was more participation. This was followed by cultivating more self interests, changing themselves, seeking more knowledge of available activities, expanding their social network, and becoming more physically active.

The respondents were also asked about "how" they were going to change their leisure behaviors. Typical responses were learning to satisfy their own needs, working with their partner, increasing their leisure time, learning to relax and socialize, and learning to be healthy and take care of themselves.

Finally, respondents were asked about the importance of leisure or recreation to their life. The responses were collected on a 5-point Likert scale with 1 being not important and 5 being extremely important. The mean response was 3.9 (very important).

To test the relationship between co-dependency and leisure behavior, crosstabulations and correlations were used. It must be noted, however, that due to the nature of the study (a pilot study with a small sample size), data are not predictive and can only be interpreted at face-value.

In terms of indoor activities, it was found that twice as many individuals with a high co-dependency inventory score were in the low activities quadrant of the crosstabulation (Table 4). In addition, there was a slight negative correlation between co-dependency rating and total indoor activities.

For outdoor activities, nearly twice as many individuals with a high co-dependency inventory score were in the low activities quadrant of the crosstabulation (Table 5). As with the indoor activities, a slight negative correlation was found to exist between co-dependency inventory score and total outdoor activities.

Table 4
*Co-Dependency by Number of Indoor Activities*

| Co-Dependency Index | Indoor Activities | |
|---|---|---|
| | Low | High |
| Low | 19.4% | 19.4% |
| High | 41.9% | 19.4% |

Table 5
*Co-Dependency by Number of Outdoor Activities*

| Co-Dependency Index | Outdoor Activities | |
|---|---|---|
| | Low | High |
| Low | 19.4% | 19.4% |
| High | 35.5% | 25.8% |

Finally, for all activities, nearly twice as many individuals with a high co-dependency inventory score were found in the low activities quadrant of the crosstabulation (Table 6). A slight negative correlation was calculated between co-dependency and total activities.

Table 6
*Co-Dependency by Number of Activities*

| Co-Dependency Index | Total Activities | |
|---|---|---|
| | Low | High |
| Low | 19.4% | 19.4% |
| High | 35.5% | 25.8% |

## Discussion

In terms of the relationship between co-dependency and recreation, data indicate that women with high co-dependency ratings participated in fewer activities overall and that a negative correlation exists between co-dependency and overall recreation/leisure activities. While the small sample size in the study makes the reliability of the statistics suspect, the indication of high co-dependency and low recreation/leisure participation is, nonetheless, present. The overall conclusion of the study is that women with co-dependency may exhibit poor recreation/leisure behavior patterns and recreational therapy may have a significant positive impact on the treatment of co-dependency. The impact of recreational therapy will accrue through the inherent benefits of recreation participation (expressing a wide range of emotions, gaining competence and self-worth, improving one's self-image, and achieving recognition), through the initiation of new activities into a person's life, and, especially, through the initiation of activities that focus on the self (as opposed to co-dependent activities that focus on a relationship or caretaking activities).

The study finds that while all of the respondents participate in some indoor recreation/leisure activities, the most popular activities are passive in nature, such as watching TV, listening to music, reading, socializing, relaxing, watching movies, writing, playing indoor games, and involvement in hobbies. Recreational therapy as an intervention has the potential to open the door to the physiological benefits gained from the more active forms of indoor recreation, to allow individuals to try new activities in a secure setting, and to encourage individuals to cultivate self-interests.

In terms of outdoor recreation, 80% of the respondents participate in activities in the out-of-doors as opposed to the national average of 88%-92% (USDI, 1985). As with the indoor pursuits, the most popular activities are passive, such as walking, picnicking, visiting historic sites, fishing, and camping. Because outdoor recreation has special benefits to offer (Jensen, 1985), recreational therapy may be especially beneficial in motivating the population to obtain these benefits and to challenge themselves in a new environment.

The study recommends that the actual intervention of recreational therapy be tested on a co-dependent population. In terms of application of the intervention, the study identifies a population that exhibits co-dependent behaviors who benefit from the inherent values of recreation.

Recreational therapy is also indicated for this population due to the current status of change in their lives. The majority of respondents state that their recreational activities decreased during their last relationship and that they anticipate changes over the next year. Upon entering the Shelter, the majority of women are open to new ideas and approaches in their lives. In terms of their leisure behavior, they want to participate more, cultivate new self-interests, expand their social network, and become more physically active. The clients see very few options for themselves and are in great need of a positive influence in their lives that recreational therapy may provide.

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# Discretionary Time Use And The Chronically Mentally Ill

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With the passage of the Community Mental Health Centers Act of 1963 and numerous subsequent amendments, community mental health centers and social service agencies across the country received a mandate to alter the care of the mentally ill in the direction of providing decentralized, local community-based treatment services. This movement toward the deinstitutionalization of the mentally ill increased the demands placed on community social service systems to meet the diverse needs of previously institutionalized individuals (Bachrach, 1982).

Through this community treatment approach, positive gains have been made in meeting the needs of this segment of our population. Treatment has moved from an institutional/inpatient to a community/out-patient thrust thereby reducing the length of long-term hospitalization due to psychiatric illness (Bachrach, 1982; Goldman, Gottozzi, & Taube, 1981). In addition, community-based partial hospitalization programs have emerged offering the chronically mentally ill individual the opportunity to receive structured transitional treatment following hospitalization. Problems continue to exist however. Although there has been a decrease in patient census within mental hospitals, there has been a dramatic increase in the number of re-admissions to these hospitals referred to as "the revolving door syndrome" (Bachrach, 1982; Test & Stein, 1976). Contributing to this problem are deficiencies in the "quality of life" and lack of acceptance of the mental patient residing within the community setting (Armstrong, 1978; Mullaney & Sheely, 1968; Test & Stein, 1976).

### *Leisure and the Chronically Mentally Ill*

To respond to the charges mandated by the move toward the deinstitutionalization of the mentally ill individual, community mental health centers and social service agencies have endeavored to coordinate resources in an attempt to offer quality community-based treatment. This community-based treatment approach has, at its foundation, the development of effective community living and coping skills within the natural environment (Christoff & Kelly, 1985).

These coping skills can be classified into four categories: activities of daily living skills, vocational skills, social and interpersonal skills, and leisure time skills. Each category of coping skills plays a significant role in the rehabilitation of the chronically mentally ill individual.

Activities of daily living encompass such activities as cooking, personal grooming, budgeting, shopping, restaurant use, etc. Activities of daily living skills enable the chronically mentally ill individual to meet basic needs for daily maintenance and community living.

Vocational skills include job training and the ability to effectively seek and maintain employment. For the chronically mentally ill individual, however, the potential for employment is poor, leaving an enormous amount of unstructured time.

Appropriate skills for group interaction, communication, and relating to others encompass the area of social and interpersonal skills. Social and interpersonal skills offer the individual resources for interacting with the community in which he or she resides. Many chronically mentally ill individuals have histories of social deprivation and have therefore, never developed effective interpersonal skills (Lamb, 1967).

Leisure time skills involve the ability to effectively utilize discretionary time. Leisure time activities will range from television viewing to the use of community recreation centers and resources. These outlets offer opportunities for social interaction and the development of interpersonal relations and add to the quality of life of the individual (Christoff & Kelly, 1985; Faulkner, Terwilliger & Cutler, 1984; Test & Stein, 1976). The need for active involvement on the part of community mental health agencies in the provision or facilitation of therapeutic recreation, general recreation, and leisure services is apparent.

The literature repeatedly identifies recreation and leisure skills and patterns as a major factor in the

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maintenance of the mentally ill within the community setting (Franklin, Kittredge, & Thrasher, 1975; Gordon, Rosenberg, & Morris, 1966; Olson & McCormack, 1957; Test & Stein, 1976, 1979). As identified and supported by others, "Leisure-time activities of those readmitted [to the hospital] and those who were not significantly different. . . Those not readmitted engaged in more activities and engaged in them more often" (Franklin et al., 1975, p. 751). The lack of meaningful social and recreation outlets has been recognized as a contributor in the readmission of individuals with psychiatric disabilities. Therefore, community-based services that facilitate client participation in social and leisure activities can play an important role in the healthy maintenance of the chronically mentally ill within the community setting.

### *Pilot Study of Discretionary Time Use and Chronically Mentally Ill Adults in a Group Home Setting*

*Background.* Acknowledging that previous research indicates that the number and frequency of discretionary time activities, social and recreational outlets, and interpersonal relations all play significant roles in the healthy maintenance of the chronically mentally ill within the community setting, the provision of community based services that address the social, recreation, and leisure needs of this population is apparent. The provision of these services should take several forms including: the development of leisure skills, education on the values and role of leisure, provision of direct services in the community, development of social and interpersonal skills, and provision of recreation and leisure opportunities in residential treatment.

Ultimately, the concern is for the effective living of the chronically mentally ill individual within the community setting. One aspect of effective living is the quality of discretionary time usage.

The purposes of this project were threefold: (a) to provide a community based therapeutic recreation services program; (b) to evaluate the quality of discretionary time use of the subjects; and (c) to verify, through empirical means, the impact of the program on quality of discretionary time use of members of a group home for the chronically mentally ill.

*Subjects.* Although the subject sample for this project consisted of a relatively small group of individuals, current practices in small-case research design indicate its appropriateness in social science and behavioral research. These single-subject and small-case approaches are increasingly being supported and employed by leisure and therapeutic recreation researchers (Dattilo, 1986; Dattilo & Barnett, 1985; Schleien, Kiernan, & Wehman, 1981; Weiner, 1979). The literature suggests that these approaches are particularly salutary when combined with repeated measures techniques and reversal designs (Hersen & Barlow, 1976).

For the purpose of this project, the subjects consisted of seven male clients ranging from 25 years to 68 years of age residing in a community based group home for the chronically mentally ill. Daily routines of the subjects involved participation in a day treatment program at the community mental health center from 9:00 a.m. through 12:30 p.m. Individual counseling was available as needed. From 12:30 p.m. throughout the evening, the clients were not involved in structured programs. Only one individual was involved in a sheltered workshop experience, from 7:30 a.m. through 4:00 p.m. Data were, however, recorded on this individual during days off or down time at home from the work adjustment center.

*Therapeutic Recreation Services Program.* The impetus for the provision of the therapeutic recreation services program was the perceived poor quality of discretionary time use of the clientele during non-structured time periods. Therefore, a decision was made to investigate the potential need for a therapeutic recreation and leisure skills and services program at the group home.

Following an initial discussion with community mental health staff and the residents of the group home, the decision was made to implement a pilot program and evaluate its effectiveness. Due to the schedules of the clientele and the identified need to offer opportunities during the poorly utilized discretionary time periods, the therapeutic recreation and leisure skills and services program was scheduled for the afternoon and evening hours.

For the purposes of empirical verification, a repeated measures ABAB withdrawal design was utilized. The program was broken into four phases. Phase I involved the establishment of baseline behavior for the residents. Phase II encompassed the implementation of leisure counseling, activity assessment, and activity instruction/programming. The third phase of the program involved a withdrawal of the services and a return to the collection of baseline data. The fourth phase was a return to the provision of activity instruction/programming with the residents.

Phase I of the program involved the collection of data relating to the quality of discretionary time use by the clientele. Evaluation of the quality of discretionary time use was based on an adapted

version of a classification scheme developed by Schleien et al. (1981). Quality of discretionary time use and representative behaviors were classified as follows:

1. High Quality Discretionary Time Usage
   a. Goal directed behavior during discretionary time (this included solitary activity of a goal directed nature, social activities with other individual, etc.)
   b. Age appropriate behavior.
   c. Appropriate display during activity involvement (including material use, social interaction).
   d. Creative activity.
   e. Personal growth activity.
2. Low Quality Discretionary Time Usage
   a. Solitary activity involvement, non-creative or non-growth oriented.
   b. Watching television.
   c. Watching others engage in activity without interacting.
3. Inappropriate Discretionary Time Usage
   a. Smoking without additional activity.
   b. Sitting and staring.
   c. Aimless behavior (wandering, self stimulation).
   d. Sleeping

A momentary time sampling technique at one-minute intervals was used by three trained observers to evaluate group home residents' quality of discretionary time usage. Interrater reliability was established by having two observers simultaneously observe and record discretionary time behavior. Eight separate reliability checks were made of paired observations with reliability ranging from 79% to 100% agreement between observers with an average of 93% agreement.

Each resident was evaluated consecutively relative to his discretionary time use. In turn, approximately eight observational recordings could be generated per resident each hour.

The second phase of the project involved two basic services, and the provision of leisure counseling and education, leisure activity instruction and/or programming.

The leisure counseling and education services involved the assessment of client interests, a discussion related to the values and benefits of leisure activity involvement, and the personal evaluation of one's present and desired discretionary time activity involvement. Services were offered through formal and informal individual and group contact.

Therapeutic recreation programming and instruction were incorporated based on the interests and needs of the clientele. Since the mission of the group home is to work toward the independent functioning of the client, programming was geared toward acquisition and reinforcement of skills needed for independent community activity involvement and quality discretionary time usage.

Independent use of personal and group home resources for quality discretionary time use was considered as one area for skill development. This involved the development of new or the use of previous hobbies and activity outlets. Wood working, gardening, painting, neighborhood walking, playing table games, entertaining for dinner, and going on outings are examples of the types of activities incorporated. In addition, instruction in planning activities for individual and group participation, appropriate behavior during activity participation, and group cooperation were offered.

To enhance the use of community resources, residents were introduced to such local resources and discretionary time opportunities as the public library, horseback riding areas, bowling alleys, theaters, and local parks. Local university sporting activities were also utilized used to orient and acclimate the client.

During the counseling, instruction, and programming phase, quality of discretionary time usage measures was also recorded. These measures were incorporated both during unstructured time and during structured voluntary programming. Observations were recorded during seven separate intervals by the trained observers with the incorporation of two checks for interrater reliability. Programming was offered three times per week for nine weeks.

Following Phase II, instruction and programming were discontinued with the residents. Since the project was a cooperative venture between a university therapeutic recreation curriculum and a community agency, services were discontinued for three weeks between semesters. Prior to the re-establishment of programming, observing and recording were made relative to the quality of discretionary time usage of the subjects. During this phase, five data recording sessions were held.

Phase IV of the study involved the resumption of instruction and program provision. Group discussions of previous discretionary time topics and concerns were conducted at the onset of the final phase. An average of three sessions per week of discretionary time programming and instruction were re-introduced into the schedule of the group home residents. As in Phase II of the project, programming that enhanced the use of personal, group home, and community resources were emphasized.

## Results

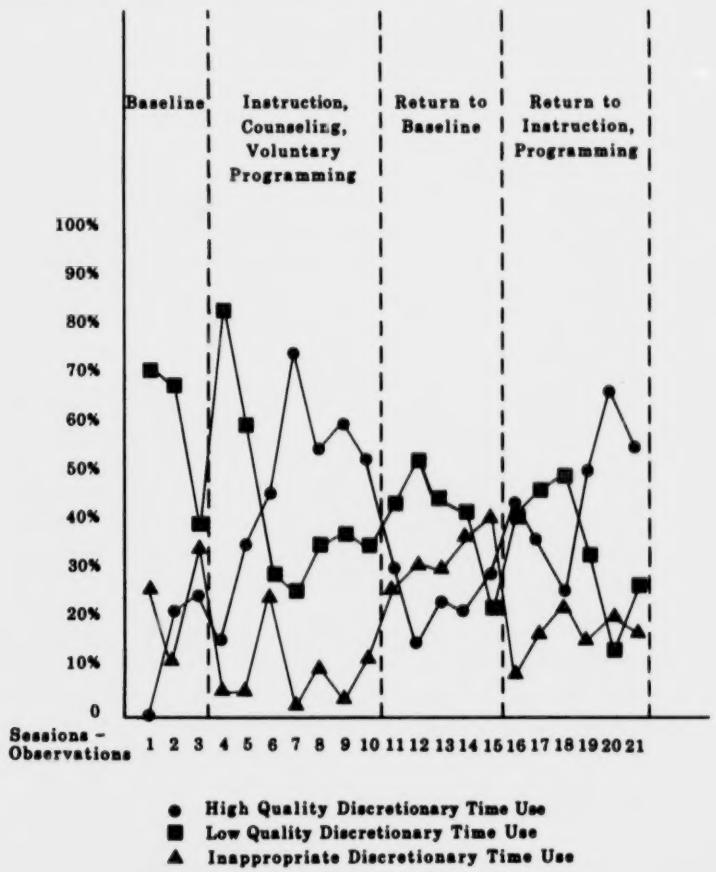
As indicated in Figure 1, high quality discretionary time usage (HG) during the baseline phase was limited among the group. The average high quality discretionary time use for the subjects during Phase I was 15.6%, with the highest percentage of HQ time recorded being 22%. Low quality discretionary time usage (LQ) dominated the activities of the group, averaging 59.3% of their discretionary time usage and ranging up to 70.0% of involvement. In addition, an average of 24.0% of the group's time was engaged in inappropriate discretionary time behavior.

During Phase II, increases in HQ behavior were demonstrated. With the exception of the first observation, the high quality discretionary time usage of the group ranged from 35% to 75% with a mean of 48.0%. Low quality (LQ) discretionary time usage decreased from 59.3% during Phase I to 44.0% during the second phase. Furthermore, inappropriate discretionary time usage was reduced by 15.2% to an average level of 8.8%.

With the withdrawal of therapeutic recreation programming and instruction and a return to baseline, high quality discretionary time use fell to an average of 23.8%. Although 8.2% higher than during Phase I, the drop off is notable. Low quality usage also declined to an average of 41.8% of the group's discretionary time. As expected, the inappropriate discretionary time usage of the subjects increased with programming withdrawal. The increase, however, exceeded the Phase I baseline average by 9.0% with the group involved in inappropriate discretionary time usage 33.0% of the time.

Phase IV of the project, a return to instruction and programming, shows a considerable increase in the HQ discretionary time usage among the group

*Figure 1.* Mean Quality of Discretionary Time Use Across Each Phase.



with an average of 46.5% as compared to 23.8% during the third phase. Low quality time use continued to decline and encompassed 35.3% of the group's behavior. Inappropriate discretionary time usage also declined from a Phase III average of 33.0% to a Phase IV average of 16.8%. The Chi-square analysis of the quality of discretionary time use during baseline and intervention phases indicates a significant ($p<.001$) difference in the quality of discretionary time usage.

Although Figure 1 demonstrates fluctuations in the quality of discretionary time usage throughout each phase of the project, these fluctuations can be primarily attributed to changes in the group's behavior during non-structured time and individual choice of activity participation. For instance, recorded observations during non-program time of Phase III resulted in a mid-phase drop in HQ behavior of the group and increases in low quality behavior and inappropriate behavior. However statistically, the HQ behavior of the group as a whole during the intervention phases is higher than during the baseline phases. Furthermore, individual quality discretionary time behavior encompasses a mixture of both high and low ratings based on individual needs for creative outlets, social interaction, and simple diversion.

## Discussion

This study demonstrated a number of positive points that warrant further investigation with regard to the impact of therapeutic recreation and leisure skills and services programming on the discretionary time usage of the chronically mentally ill individual residing within the group home setting. As indicated in the literature, there exists a need for comprehensive community-based services and "new models" in order to impact on the quality of life of chronically mentally ill individuals (Malm, May, & Dencker, 1981; Mullaney & Sheely, 1968; Schwartz & Goldfinger, 1981).

The study indicated that the discretionary time usage of the chronically mentally ill adult residing within the community can be altered in a more positive direction. Through the provision of therapeutic recreation and leisure services, group home residents will engage in appropriate discretionary time behaviors if given the opportunity. Although this pilot project did not demonstrate long term carryover effects with regard to the quality of the subjects' discretionary time usage, initial data suggest potential for influencing discretionary time behavior patterns. Longitudinal research, however, is required.

The results of this pilot project also infer the need to examine the inclusion of discretionary time programming and skill development as a component of the comprehensive community mental health services system. The incorporation of therapeutic recreation personnel and their services offer the chronically mentally ill group home resident the opportunity to engage in higher quality discretionary time behavior.

Implications are evident for the inclusion of therapeutic recreation services in partial hospitalization settings. Partial hospitalization programming should encompass the provision of systematic skill instruction, leisure counseling, and opportunities to engage in community-based activities during traditional blocks of leisure time (i.e., evenings and weekends).

Finally, the project outcomes imply the need to consider the coordination of efforts between institutions, community mental health centers, local leisure service agencies, and the community at large. Cooperative efforts between agencies may impact on the "revolving door syndrome" and add to the quality of life of chronically mentally ill individuals residing within the community setting.

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# Therapeutic Recreation and Family Therapy: A Needs Analysis of Wives of Stroke Patients

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In its attempt to become more of a valued part of the treatment team in rehabilitation hospitals/facilities, therapeutic recreation (TR) has to continue to document what its place is, and what services it should offer. Treatment teams including physicians, nurses, physical therapists, occupational therapists, therapeutic recreation specialists (TRSs), speech therapists, social workers, and others generally function in an interdisciplinary manner where the teams develop the entire treatment plan (Fazio & Fralish, 1988; Olsson, 1988a; Peterson & Gunn, 1984). In general, the treatment team assesses the needs and problems of the individual patient/client before the treatment plan is developed (Adamovich, Henderson, & Auerbach, 1988; Fazio & Fralish, 1988; Olsson, 1988b). However, the patient is not the only individual that needs the treatment team's attention. Stroker (1983) notes that families play an important role in determining both the course and the possible results of the patient's rehabilitation program.

Therapeutic recreation, like other disciplines of the treatment team, includes family therapy as part of its practice (NCTRC, 1988). What then, should be the programming goals of TR family therapy as they relate to the needs of wives of stroke patients? To date, there have been limited studies reported that have identified the perceived needs of wives of hospitalized stroke patients and how well the needs are being met by health professionals. Thus, the purpose of this study was to determine the relationship of the perceived needs of wives of hospitalized cerebrovascular accident (CVA) patients with the degree to which the perceived needs were met.

Stroke effects not only the patient, but his family as well (Mykyta, Bowling, Nelson, & Lloyd, 1976. As a victim experiences effects of the stroke, so do the family members. A stroke can exert a far-reaching and powerful force on the interrelationships of patient and family; therefore, changes in the family system can be traumatic and dramatic (Aroskar & Dittmar, 1978; Evans, Pomeroy, Hammond, & Halar, 1985).

Stroke, the lay term for cerebrovascular accident (CVA), is defined as "a sudden loss of brain function caused by decreased blood supply to a part of the brain.....usually the culmination of progressive disease that may extend over many years" (National Institute of Neurological and Communicative Disorders and Stroke [NINCDS], 1985, p. 1). It is the leading neurological problem and the third leading cause of death in the United States. Approximately 400,000 Americans suffer a stroke every year. The estimated annual cost in the United States for stroke and its after effects is over eight billion dollars (NINCDS, 1985).

A stroke can manifest itself in many ways, depending on the part of the brain involved and on the cause of the stroke. The ensuring results may range from brief disability with full recovery to instant death, or to severe disability with paralysis and aphasia. (Aphasia is the inability to comprehend or express thoughts in written or verbal language.)

Archbold (1980) interviewed six families, each with an elderly patient who had a stroke at least one year earlier. She described how each situation, though similar, is individual in its effects on the patient and on family relationships. The patients had varying degrees of disabilities, all requiring some home care. She described changes which occurred in family structure and dynamics. Key

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issues that the caregivers described included "strain, ambivalent response to caregiving, lifestyle changes, decision making within the family, and provision of various supports to the parent" (p. 83). Some family changes included additional employment in order to meet additional expenses, role changes and decreased free time for others. Some resentment was noted among the caregivers as a result of associated changes. Conflict occurred within families, including divorce.

A variety of emotions, feelings, and concerns are experienced by spouses when a stroke occurs. Family effects are felt at the time of the diagnosis and during the acute phase of the illness and continue throughout the rehabilitation phase. The initial shock is often followed by feelings of anxiety, confusion, fear and apprehension about the patient's general condition and prognosis. Guilt is also an emotion often experienced by wives (Cohen, Harbin, Collis, & Greenberger, 1986).

Part of the emotional impact on the family may be related to a lack of knowledge about stroke. Most people know very little about the disease until it happens to them (Dzau & Boehme, 1978). Therefore, ignorance of what is happening and misconceptions are common. The very word "stroke" itself connotes fear and apprehension. Overs and Belknap (1967) report, "The family of the stroke patient is faced with a catastrophic problem about which they are initially in great ignorance" (p. 45). They report that families do not fully comprehend the information they are given or are unable to accept the diagnosis.

The attitude and behavior of professional health caregivers toward both patient and family members may also have considerable impact on the spouse. The reaction of the wife is, therefore, an important consideration when working with the male stroke patient. Aroskar and Dittmar (1978) observed that there is often a difference between providers and consumers in their perceptions of the family needs at this crucial time. Professional TRSs as part of the treatment team need to be aware of the perceived needs of both patient and family members. In discussing the needs of family members of critically ill patients, Molter (1979) noted that health care providers are often generalized and based on the staff perception of the needs, rather than those perceived by the family members.

As a member of a treatment team, the TRS must be perceptive and sensitive to the emotions, needs and problems that impact family members. Reactions of spouses have special significance. Family members have many questions and concerns regarding future care of the patient, changes in lifestyle (include leisure time activities), changes which will be occurring within the family structure, and how and by whom the future care will be provided. Changes in the personality of the stroke patient, as well as possible communication difficulties related to the type of brain damage, increase the anxiety of the family members. Perceptual disorders are also difficult on the family coping mechanism (Evans & Miller, 1984).

It is also necessary for TRSs to include family members in developing and implementing care for the patient. This is supported by Buck (1963) who claims that "a stroke is actually a family illness and assistance should be readily available for the entire household." (p. 29). McCormick and Williams (1979) related that family life borders on near breakdown in a surprising number of families after one member has a stroke and that information as it relates to the patient's functional abilities, communication, health status, and activities plays an important new role in putting the family back together.

In addition to treatment team concerns (e.g., communication, functional abilities), TR seems to be in a position to address the families needs in the area of activities through the service delivery of leisure lifestyle awareness, leisure resource guidance and leisure skills development. Hayes (1976) suggested the primary focus of lifestyle awareness was educative, re-educative responding to concerns such as what is leisure, retirement, and adjustment to conditions and aging processes? Leisure resource guidance's primary focus included activity exploration and consumption responding to the what, where, when and how much of leisure involvement concerns of clients. The primary focus of leisure skills development is developmental skills and the normalization process as they relate to client concerns in the areas of mobility, planning, budgeting, motor movement and lifetime activities (Hayes, 1976). It would appear that all three of these areas (leisure lifestyle awareness, leisure resource guidance, leisure skills development) would be appropriate for both the patient and the family.

## Method

Fourteen wives of hospitalized stroke patients volunteered for the study over a period of five months. The wives ages varied from 39 to 77 years with a mean of 60.1 and a standard deviation of 10.5. Their husbands' ages ranged from 41 to 83 years with a mean of 65.9 and a standard deviation of 11.01. Occupations varied among both wives and

husbands. Of the husbands, three were truck drivers, two were college professors, three were auto industry workers, two were business owners, and four were retired.

The sites selected included rehabilitation units in two midwestern hospitals of a metropolitan area and a rehabilitation hospital in a rural area approximately 30 miles from the other two. Permission for the study was requested and granted from administrators of the hospitals. In consideration of the patient's and family's legal right to privacy, the head nurse of each hospital's rehabilitation department assisted in accessing the subjects. Each head nurse was given a summary of the proposal and the letter to be presented to each wife when the husband was admitted to the hospital unit. Each institution was visited at least once each week to obtain the names and room numbers of those patients willing to participate. A self-administered questionnaire was developed partly from instruments described by Hampe (1975) and by Molter (1979). Content validity was established using both family members and professional nurses and by a literature review. Reliability for the questionnaire was .85 (Molter, 1976; Norris & Grove, 1986). A total of 27 items was used (see Table 1) and the items were asked in a 4-point Likert type response (Needs: 1. not important; 2. slightly important; 3. moderately important; or 4. very important; and Met: 1. not met; 2. partially met; 3. satisfactory; or 4. well met). Rho was used to determine the relationship between the needs and how well the needs were met. Interviews were conducted between the second and fifth weeks following the stroke. The wives were asked to reflect back to the first two weeks of the stroke in the acute care setting and respond as they felt then. They were not interviewed during the first two weeks because it was felt that they might have been too emotionally distraught to complete the questionnaire.

## Results

The results were analyzed to provide answers to three questions:

1. What are the perceived needs of the wives of stroke patients?
2. To what degree do wives of stroke patients believe their perceived needs are being met?
3. Is there a relationship between the perceived needs of the wives of stroke patients and how well the perceived needs are met?

In reviewing the results, the reader is advised to note that the sample size is small and therefore, should interpret the results with caution. A low consensus of female patients residing in the hospitals participating in the study determined their exclusion.

Table 1 displays the mean value for the importance of the perceived needs and their rank order, the mean value for the degree to which the perceived needs were met and their rank order and the rank order difference between the importance and degree met. There were three items that were rated very important with a value of 4.0 by all 14 participants. These were: "to know what I can do to help with my husband's care;" "to feel that the personnel care about my husband;" and "to be included in discharge planning." Six perceived needs with mean values of 3.9 and three with mean values of 3.8 follow closely. There were no items below the mean value of 3.0.

There were no items with a mean value of 4.0 (well met). The highest value was 3.3 which included the following two needs: "to feel accepted by the hospital staff;" and "to have a specific person to call at the hospital when I am unable to visit." The low end of the range was 1.5 This was the need to "talk about my negative feelings, such as guilt and anger."

The top ranked items of importance to the wives of the CVA patients were: to know what I can do to help with my husband's care, to be included in discharge planning, to feel the nursing personnel care about my husband, to be kept informed of my husband's condition, to have questions answered honestly, to be assured that the best care possible is being given to my husband, to know why things are being done to my husband, to know what kind of activities my husband is/will be able to do, and to have directions regarding what to do at the bedside. The top ranked items from the perceived needs were met area included: to feel accepted by the staff, to have a specific person to call at the hospital when I am unable to visit, to stay with my husband if desired, to feel the nursing personnel care about my husband, to have questions answered honestly, and to know why things are being done to my husband. A rho of .23 indicated that there was no relationship between the perceived needs of the CVA patient's wives and the degree the needs were met.

## Discussion

Results indicated no relationship between the perceived needs of the wives of the stroke patients and the degree the perceived needs were met. Needs ranked high in importance but low in being met included: to know what to do to help with my

Table 1
*Rank Order Relationship of Mean Values of Importance of Perceived Needs of Wives of Hospitalized Stroke Patients With Mean Values of How Well the Needs Were Met*

| Item | Mean Importance | Rank | Mean Met | Rank | Rank Difference |
|---|---|---|---|---|---|
| Opportunity to discuss my feelings: | 3.3 | 23 | 2.9 | 10 | +13 |
| To be kept informed of my husband's condition: | 3.9 | 6.5 | 2.8 | 16 | -9.5 |
| To feel there is hope: | 3.8 | 11 | 2.9 | 10 | +1 |
| To have questions answered honestly: | 3.9 | 6.5 | 3.0 | 5.5 | +1 |
| To feel accepted by hospital staff: | 3.6 | 16.5 | 3.3 | 1.5 | -15 |
| To be assured that the best care possible is being given to my husband: | 3.9 | 6.5 | 2.9 | 10 | -3.5 |
| To have a specific person to call at the hospital when I am unable to visit: | 3.7 | 13 | 3.3 | 1.5 | +11.5 |
| To have someone be concerned with health status: | 3.1 | 25.5 | 2.2 | 23.5 | +2 |
| To have staff be aware of me as an individual: | 3.1 | 25.5 | 2.8 | 16 | +9.5 |
| To discuss how my husband's illness will affect my family: | 3.8 | 11 | 2.1 | 25.5 | -14.5 |
| To know what I can do to help with my husband's care: | 4.0 | 2 | 2.5 | 21 | -14 |
| To talk to the same nurse every day: | 3.4 | 21.5 | 2.9 | 10 | +11.5 |
| To be included in discharge planning: | 4.0 | 2 | 2.9 | 10 | -8 |
| To feel that the nursing personnel care about my husband: | 4.0 | 2 | 3.1 | 4 | -2 |
| To know why things (medical techniques and nursing procedures) are being done with my husband: | 3.9 | 6.5 | 3.0 | 5.5 | +1 |

Table 1 Continued
*Rank Order Relationship of Mean Values of Importance of Perceived Needs of Wives of Hospitalized Stroke Patients With Mean Values of How Well the Needs Were Met*

| Item | Mean Importance | Rank | Mean Met | Rank | Mean Met | Rank | Difference |
|---|---|---|---|---|---|---|---|
| To be told about someone able to help with our family problems: | 3.2 | | 24 | | 2.8 | 16 | +8 |
| To understand how to communicate better with my husband: | 3.5 | | 20 | | 2.5 | 21 | -1 |
| To know what kind of activities my husband is/will be able to do: | 3.9 | | 6.5 | | 2.5 | 21 | -14.5 |
| To be included in decision making: | 3.8 | | 11 | | 2.6 | 19 | -8 |
| To be greeted by at least one nurse daily: | 3.6 | | 16.5 | | 2.8 | 16 | +0.5 |
| To talk about my negative feelings, such as guilt and anger: | 3.0 | | 27 | | 1.5 | 27 | 0 |
| To have directions regarding what to do at the bedside: | 3.9 | | 6.5 | | 2.2 | 23.5 | -17 |
| To observe my husband during therapy: | 3.6 | | 16.5 | | 2.9 | 10 | +6.5 |
| To have nursing care staff readily available: | 3.6 | | 16.5 | | 2.9 | 10 | +6.5 |
| To understand behavioral changes in my husband related to stroke: | 3.6 | | 16.5 | | 2.1 | 25.5 | -9 |
| To stay with my husband whenever I desire: | 3.6 | | 16.5 | | 3.2 | 3 | +13.5 |
| To have nursing staff demonstrate friendliness and concern for my inter- personal relationship with my husband: | 3.4 | | 21.5 | | 2.8 | 16 | +5.5 |

rho = .23

husband's care, to have directions regarding what to do at the bedside, to feel accepted by hospital staff, to know what kind of activities my husband is/will be able to do, and to discuss how my husband's illness will affect my family. It would appear that the TRS would be in a good position to impact the kinds of activities the husband would be able to participate in alone and with his wife.

Leisure lifestyle awareness, leisure resource guidance and leisure skills developments would all seem appropriate activities for both the patients and their spouses. The average age (66) of the stroke patients would indicate leisure awareness could have a positive impact on the adjustment to retirement and the disability. A leisure interest survey should be administered to both the patient and the wife. The results from the interest survey could be used in several ways. One, it could determine what leisure interests both the wife and the patient had in common. These common activity interests could be a means to bring the wife and the patient together, working toward the same leisure goals and satisfactions. Two, the common activities engaged in could be a way to make both parties equal. A stroke many times puts the patient's spouse in a position of caring for the patient's physical needs; consequently, a different type of relationship is formed, one which is not equal in control. The TRS could teach and/or adapt recreation activities which would be challenging to the patient and the wife yet kept both parties equal in control. This would give the patient a sense of control over his own life and could improve communication between the two. And three, new leisure skills could be taught to both the patient and his wife based on leisure interest areas (e.g., crafts and music). These new skills could strengthen functional deficiencies and increase self-esteem by reinforcing strengths and easing retirement and disability adjustments. The TRS by employing leisure lifestyle awareness, leisure resource guidance and leisure skills development activities should be able to positively effect at least one area of high importance to wives of stroke patients -- informing each wife of what kinds of leisure activities the husband is/will be able to do.

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# Identification of Competencies Needed in Gerontological Recreation Courses: An Application of the Delphi Technique

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Persons who are elderly compose the most rapidly growing segment of the population of the United States. The age 60 and over population has increased seven fold since 1900. Those over 60 represented one out of six persons in the U.S. in 1985 but will account for more than one in four (i.e., 27%) by the year 2030. The average age of those who are elderly is also increasing with those 80 and older comprising the most rapidly expanding group of elders (Pegels, 1988).

Such demographic changes will dramatically impact health care. Today, those over age 65 only represent 12% of the population but are responsible for more than 30% of all expenditures for health care in the United States. Older adults have hospitalization rates 3 times higher than persons under 17 and visit medical doctors 50% more frequently than adults under 45 (Atchley, 1985). The projected increase in the over 80 population is particularly noteworthy because it is the oldest of the old who are the highest users of health care services (Pegels, 1988).

The delivery of services to the aged requires not only specialized academic preparation but also demands a thorough knowledge of the unique needs of the elderly. A recent study of 85 university recreation departments revealed that only 10% offer an emphasis in the area of gerontology (MacNeil, 1984). Sixty percent offer one class in this area. At present, only two departments are known to offer a certificate in gerontology.

Meeting the needs of this increasing number of persons who are elderly is a challenge for professionals in both therapeutic recreation and general recreation. Therapeutic recreation specialists have an important role in the maintenance of independence and functional ability in frail or disabled elderly people. General recreation personnel must be prepared to deal with the dramatic increases in the well elderly, a population with a large portion of retired individuals with much leisure time. Therefore, it is essential that students preparing for careers in both therapeutic and general recreation have training in serving persons who are growing old. Therapeutic recreation educators and practitioners, along with other allied health professionals, are beginning to recognize the need for gerontological training in providing quality services for older clients. Specialized educational opportunities are a much needed step in advancing the state-of-the-art in professional preparation in the recreation field.

This study identified competencies that university students should obtain in specialized gerontology courses: one, a therapeutic interventions course for therapeutic recreation students, and the other a leisure and aging course for general recreation students. Toward this end, a three-round Delphi technique was employed.

## Method

The Delphi technique is named for the Oracles at Delphi, Greece, who would forecast future events. This technique was first used by the Rand Corporation in the 1950s for defense forecasting. The Delphi method has been used in scores of instances where pooled judgment is useful (Moore, 1987). Among these have been numerous curriculum development studies (Linstone & Turoff, 1975), including a previous study by one of the present authors (Austin & Powell, 1980).

Linstone and Turoff (1975) have defined the Delphi technique as: "a method of structuring a group communication process so that the process is effective in allowing a group of individuals, as a

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whole, to deal with a complex problem" (p. 3). Linstone and Turoff go on to delineate properties of the Delphi technique that make it a desirable research method. These include: (a) gaining expert opinion when group meetings are not feasible due to time and cost; (b) utilizing more individuals than could effectively interact in a face-to-face meeting; (c) assuring anonymity by respondents, thus allowing experts to express themselves freely; (d) removing the variable of strength of personality from affecting the results; and (e) gaining consensus when pursuing a problem that can best be approached by receiving subjective judgments from a number of experts.

In our study, a total of 15 individuals were identified as experts who met criteria set by the researchers. Criteria included expertise in gerontology or therapeutic recreation with a knowledge of gerontology, and curriculum development in recreation and/or gerontology. Approximately equal numbers of practitioners and academicians were represented. Those identified were contacted and all agreed to participate in the study.

The Delphi was administered in the spring of 1989. In the first round mailed questionnaire, respondents rated 89 competency statements for the therapeutic interventions course and 66 competencies for the leisure and aging course. These original competencies had been developed through an extensive literature search, as well as suggestions from two consultants to the grant project that supported the research. Using these competencies, the questionnaire was pilot tested and adjustments made before it was mailed to the expert panel. Respondents were asked to rate each competency using a five-point scale ranging from "least essential" to "most essential." They were also invited to add or revise items. A response rate of 100% was achieved as all 15 experts responded.

The second and third round questionnaires featured the previous rating given each competency by each individual respondent. Both the mean and standard deviation for each item were also provided. Respondents were requested to re-evaluate and, perhaps, alter their previous ratings based on the knowledge of the opinions of the other panelists. Response rates for the second and third phases of the Delphi were 93% and 87% respectively.

## Results

### *Therapeutic Interventions Course*

The mean scores for competencies in the final round of the Delphi for the therapeutic interventions course ranged from 4.69 to 2.67. Of the 89 competencies, nine were rated to be essential (rated 4.5 to 5.0) and 35 were rated as being highly desirable (rated 4.0 to 4.49). Of those remaining, 34 competencies were seen to be desirable (rated 3.5 to 3.99) and ten as somewhat desirable (rated 3.0 to 3.49). One competency was rated below 2.9.

Competencies were grouped according to six descriptive categories or topical areas. For each category, the competencies scores were averaged to create a mean score for each category for each round in the Delphi. Subject mean scores for each category for each round were then compared using paired t-tests. The t-test was an appropriate test based upon its general robustness "with respect to the assumption of normality of the distributions within the treatment populations" (Winer, 1971, p. 34). Presented in Table 1 are the mean scores and t values for each round and category.

As can be seen using a paired t-test, no significant differences existed between the rounds at the .05 significance level. While mean scores did not significantly change across the three rounds of the Delphi study, a cursory review of standard deviation scores revealed a general tendency for standard deviations to become smaller. Table 2 presents standard deviation scores for each category and round of the Delphi. To evaluate further the degree to which consensus building emerged throughout the three-round Delphi, an analysis of covariance was used to generate t-test statistics for examining attitudinal regression toward greater uniformity or homogeneity of variance. T statistics for the tests of homogeneity of variance between rounds are also provided in Table 2. Examination of the t statistics for tests of homogeneity of variance revealed that the ratings of the experts did move toward consensus over the three rounds with significant changes noted for category 1 between rounds 1 to 2 and 1 to 3; category 2 between rounds 2 to 3 and 1 to 3; between all three rounds for categories 3, 4, and 5; and between rounds 1 to 2 and 1 to 3 for category 6. While it may be less essential to demonstrate any significant changes in mean evaluations on importance for competencies that compose the categories or topical areas, it is central to the concept of a Delphi methodology to demonstrate some degree of consensus building among a set of experts who represent potential different viewpoints. To this end, the significant reduction in variances across rounds provides evidence in support of some agreement on the

Table 1
*Mean Scores for Categories by Delphi Round with Paired T-test Comparisons - Therapeutic Interventions Course*

| | Means for Delphi Round | | | T Values | | |
|---|---|---|---|---|---|---|
| Categories | Round-1 | Round-2 | Round-3 | $R_1R_2$ | $R_1R_2$ | $R_1R_2$ |
| Intro to Health Care for Elderly | 3.89 | 3.83 | 3.74 | .52 | 1.26 | .64 |
| Characteristics of Elderly | 4.04 | 4.06 | 4.05 | -.44 | -.45 | -.46 |
| Philosophy of Interventions | 4.03 | 4.01 | 3.99 | -.07 | -.80 | -.47 |
| Assessment | 4.28 | 4.20 | 4.20 | .97 | -.62 | -.04 |
| Common Geriatric Interventions | 4.00 | 3.99 | 3.99 | -.20 | -.79 | -.77 |
| Doc/Eval/Ethics | 3.91 | 3.87 | 3.77 | .33 | .79 | .61 |

Note: Means were not significantly different at $p < .05$.

Table 2
*Standard Deviations for Categories by Delphi Round with T-test Comparisons - Therapeutic Interventions Course*

| | Standard Deviations by Round | | | T Values | | |
|---|---|---|---|---|---|---|
| Categories | Round-1 | Round-2 | Round-3 | $R_1R_2$ | $R_1R_2$ | $R_1R_2$ |
| Intro to Health Care for Elderly | .83 | .71 | .68 | 2.83** | 1.01 | 2.48* |
| Characteristics of Elderly | .57 | .53 | .45 | 1.94 | 3.25** | 3.89** |
| Philosophy of Interventions | .63 | .53 | .46 | 3.11** | 2.64* | 3.84** |
| Assessment | .65 | .56 | .50 | 2.95** | 2.54* | 3.71** |
| Common Geriatric Interventions | .86 | .68 | .58 | 3.88** | 3.18** | 4.66** |
| Doc/Eval/Ethics | .73 | .60 | .52 | 2.64* | 1.83 | 3.68** |

* $p = .05$ ** $p = .01$

evaluations assigned to competencies and thus, categories.

*Course Design.* Within the actual process of designing the therapeutic interventions course, a decision was made to eliminate any competencies that were rated below 3.0 in the final round of the Delphi. The criterion for making this decision was based on a lack of clear salience for these competencies as indicated by a low evaluation given by respondents and was one method for narrowing the content to be contained in the course. The remaining competencies as previously grouped into categories for analysis then formed the parallel six units of the course. The six are: (a) Introduction to Health Care for Persons who are Elderly; (b) Characteristics of Frail, Vulnerable, Infirm or Disabled Elderly; (c) Philosophy of Intervention Programs; (d) Assessment; (e) Common Geriatric Interventions; and (f) Documentation/Evaluation/ Ethics.

The first unit on health care contains the competencies relating to the following subtopics: (a) facts and myths regarding persons who are elderly, (b) demographic changes in older adult populations, (c) health care systems serving elders, and (d) concepts of health and rehabilitation related to therapeutic services for persons who are elderly. Found under the second unit on characteristics are: (a) normal processes of aging, (b) vulnerability to disability and infirmity, (c) common diseases, illnesses and disabilities, (d) limitations and constraints, (e) forms of loss, and (f) effects of medication. The third unit of the course on philosophy of intervention programs deals with: (a) adult development and therapeutic interventions, (b) needs that activities meet, (c) expected program outcomes including independence and self-determination, (d) barriers that deter participation, and (e) the use of recreation activities as treatment modalities. Under the fourth unit on assessment are the subtopics: (a) role and function of assessment, (b) medical and functional assessment, (c) assessment tools, (d) multidisciplinary assessment, and (e) assessment of leisure needs, interests and abilities. The fifth course unit covers common geriatric interventions and contains: (a) activity analysis, (b) behavioral management techniques, and (c) specific therapeutic interventions. The last unit of the interventions course encompasses documentation, evaluation and ethics and has subtopics on: (a) documentation in planning and evaluation, (b) program evaluation, (c) regulations that guide program design, and (d) ethical principles.

It is clear that the major themes for the therapeutic interventions course are illness and disability within a treatment and rehabilitation milieu. The top rated competencies for the course reflect these themes. The top competencies with their third round mean ratings were:

1. Knowledge of common physical diseases, illnesses and disabilities prevalent among older adult populations (e.g., arthritis, diabetes; 4.69).
2. Knowledge of normal psychological adjustments and changes common to older adults and the differentiation of these from psychopathological changes (4.69).
3. Understanding of those physical, psychological, emotional and social areas that increase the older adult client's vulnerability to disability and infirmity (4.69).
4. Understanding and ability to apply recreation as a treatment modality for therapeutic intervention in geriatric practice (4.69).
5. Knowledge of and ability to apply techniques of therapeutic intervention including but not limited to the following areas: behavior modification, reminiscence, exercise, and relaxation training (4.62).
6. Awareness of diseases involving cognitive dysfunction in older adults (e.g., dementia, Alzheimer's Disease; 4.62).
7. Ability to assess leisure needs, interests and abilities of diverse older adult populations (4.54).
8. Awareness of several assessment tools (4.54).
9. Awareness of the research literature in gerontology and geriatric practice, especially as it pertains to functional behavior and quality of life issues (4.54).
10. Understanding of how activities are utilized in the intervention process in order to assure optimal benefits to the older adult (e.g., through the use of activity analysis; 4.46).

## *Leisure and Aging Course*

The mean scores for competencies in the final round of the Delphi for the leisure and aging course ranged from 4.71 to 2.92. Of these competencies, seven were rated to be essential (rated 4.5 to 5.0) and 18 were rated as being highly desirable (rated 4.0 to 4.49). Of the remaining competencies, 21 were perceived to be desirable (rated 3.5 to 3.99) and ten as somewhat desirable (rated 3.0 to 3.49). Three competencies rated below 2.9.

The mean scores for the five categories under which the leisure and aging competencies were organized can be seen in Table 3. As with the therapeutic interventions course, these mean scores represent the average for the respective competencies constituting each category. Also presented in Table

3 are the results of paired test comparisons for the difference between means for each round in the Delphi.

When the means for each of five categories of competencies were compared for each of the rounds in the Delphi, no significant differences were found at the .05 significance level. As was the case for the therapeutic interventions course, the degree to which subjects varied in their evaluations was also tested for significant changes across the three rounds using an analysis of covariance to generate t-test statistics for variances. Table 4 presents standard deviations and t statistics for the tests of homogeneity of variance for each category and compares changes between rounds.

Results of this analysis did provide support for movement toward greater agreement in evaluations for some of the categories and between some of the rounds. Specifically, for categories 2 and 3, movement toward greater agreement was significant for rounds 1 to 2 and 1 to 3. For category 4, movement toward agreement was significant between rounds 1 and 3. No significant changes in the level of agreement were found between rounds for categories 1 and 5.

*Course Design.* Corresponding to the process of designing the therapeutic interventions course, the decision was made to eliminate all competencies for the leisure and aging course that were rated below 3.0 as they did not meet the criteria of demonstrating clear salience for inclusion. The remaining competencies formed the four units of the course which were parallel to the four categories used in data analysis. Units for the leisure and aging course included competencies in: (a) Leisure: Basic Concepts; (b) Leisure and Life Span Development; (c) Targeting, Developing and Evaluating Leisure Services for Older Adults; (d) Leisure Research Issues and Needs in Gerontology; and (e) Issues in Leisure Services for a Changing Older Adult Population.

The first unit, basic concepts of leisure, includes competencies in the following subtopics: (a) conceptual basis of recreation and leisure, (b) the changing role of leisure in the life cycle, (c) demographic characteristics of a growing aged population, (d) the impact of leisure involvement, and (e) the development of a personal philosophy underlying interaction with older adults. The second unit of the course, leisure and life span

Table 3
*Mean Scores for Categories by Delphi Round with Paired T-test Comparisons - Leisure and Aging Course*

| | Means for Delphi Round | | | T Values | | |
|---|---|---|---|---|---|---|
| Categories | Round-1 | Round-2 | Round-3 | $R_1R_2$ | $R_1R_2$ | $R_1R_2$ |
| Basic Concepts | 4.14 | 4.19 | 4.14 | -1.59 | .09 | -.06 |
| Leisure and Life Span Development | 3.89 | 3.83 | 3.78 | .34 | .00 | .32 |
| Target, Development and Evaluation Leisure Services for Older Adults | 3.86 | 3.81 | 3.71 | .18 | 1.54 | .50 |
| Leisure Research Issues and Needs in Gerontology | 4.09 | 4.03 | 3.74 | -.02 | 1.46 | 1.20 |
| Issues in Leisure Services for a Changing Older Adult Population | 4.05 | 4.03 | 3.94 | .51 | .88 | .68 |

Note: Means were not significantly different at $p < .05$.

Table 4
*Standard Deviations for Categories by Delphi Round with Paired T-test Comparisons-Leisure and Aging Course*

| Categories | Means for Delphi Round | | | T Values | | |
|---|---|---|---|---|---|---|
| | Round-1 | Round-2 | Round-3 | $R_1R_2$ | $R_1R_2$ | $R_1R_2$ |
| Basic Concepts | .80 | .82 | .75 | .78 | 1.56 | 1.80 |
| Leisure and Life Span Development | .68 | .58 | .51 | 2.32* | 1.88 | 3.07** |
| Target, Development and Evaluation Leisure Services for Older Adults | .76 | .64 | .61 | 2.81** | .93 | 2.55* |
| Leisure Research Issues and Needs in Gerontology | .86 | .77 | .64 | 1.68 | 1.87 | 2.59* |
| Issues in Leisure Services for a Changing Older Adult Population | .65 | .63 | .55 | 1.35 | 1.90 | 1.99 |

* p = .05 ** p = .01

development, contains: (a) theories of aging, (b) aging related problems, (c) myths and stereotypes, (d) social support systems, (e) developmental tasks, (f) diseases and disabilities prevalent among older adults, (g) useful motivational techniques, (h) common denominators associated with longevity, (i) the importance of spirituality, nutrition and physical activity for the health of elders, and (j) stages of life. The third unit on targeting, developing and evaluating leisure services deals with: (a) assessment of leisure interests, needs and functioning, (b) activity needs of older adults for health/wellness, (c) program development and implementation, (d) leadership skills, (e) program, leadership and client evaluation, and (f) the aging service network. The fourth unit, leisure research issues and needs in gerontology, contains the subtopics: (a) leisure research that addresses the older adult population, (b) evaluative research as it pertains to service systems and programs, (c) research in client assessment and leisure behavior, and (d) funding sources for research and programs.

The final unit in the leisure and aging course is that of issues and trends. Under it are competencies in subtopics pertaining to: (a) leisure behavior and future leisure demands/trends, (b) personal autonomy and health/wellness, (c) quality of life, (d) role of retirement, (e) population trends and impact on leisure services, (f) service delivery systems, and (g) public policy and policy issues.

The major theme for the leisure and aging course was identified as the place of leisure in maintaining health and promoting wellness in later maturity. This theme is evident in the top ten rated competencies in the third round of the Delphi for the course. These were:

1.Understanding of the role of physical, mental, emotional and social activity in the promotion of wellness for older adults (4.62).

2.Understanding the changing role of leisure in the life cycle (4.62).

3.Knowledge of how exercise and physical activity improves health for the elderly (4.62).

4.Understanding the role of leisure services in preserving personal independence and optimal health/wellness (4.62).

5.Understanding of the impact of social leisure involvement on cognitive, psychological, and physical functioning of older adults (4.54).

6.Awareness of the importance of leisure in later adulthood (4.54).

7. Knowledge of the importance to older adults of common areas of recreation programming and leisure service development including, but not

limited to, the following: outdoor recreation, physical activities, adult education, social activities (4.50).

8. Understanding of the major leisure research that addresses the older adult population (4.46).

9. Understanding the social, economic, and emotional significance of retirement, the use of pre-retirement planning, and the role of post-retirement activities (4.46).

10. Knowledge of current public policy and policy issues on aging, and their relationship to leisure services (4.46).

## Discussion

When major results of the two Delphi topics (i.e., the therapeutic interventions course and the leisure and aging course) are compared and contrasted, some interesting information is revealed. The principle theme of the therapeutic interventions course is understanding illnesses and disabilities common to older adults, and how to use interventions in treatment and rehabilitation. In contrast, the chief theme of the leisure and aging course is the place of leisure in wellness and health promotion for older adults. These findings are particularly intriguing because of the emphasis on health and wellness found in the leisure and aging course for general recreation students. While therapeutic recreation has long been concerned with treatment and rehabilitation, the high level of emphasis on health and wellness in the leisure and aging course is somewhat of a surprise. Health and wellness have not been commonly evident as major themes in general recreation courses.

On a practical level, the results of the Delphi studies reported here have already proven to be of great benefit in the design of new courses. The ratings placed on the competencies, and thus the competency categories, have been extremely useful in guiding the evolution of two new courses, "Therapeutic Interventions with Persons who are Elderly" and "Leisure and Aging." (Austin & Hawkins, 1989). The Delphi process assisted in narrowing the scope of expected knowledge competencies by providing useful evaluations on which to base determinations. The degree to which the panel of experts demonstrated agreement in their evaluations further strengthened the direction course content and the development of course related materials.

There are at least two areas of inquiry that have been suggested by the current study. A Delphi study involving elderly consumers of therapeutic recreation and leisure service programs would provide findings that could be compared to the results of the present investigations that employed educators and professionals as experts.

A drawback with any Delphi study is that the technique does not allow for direct observation of the phenomenon being investigated. This attribute suggests a follow-up study to examine actual knowledge and behavior required of therapeutic recreation specialists and recreation professionals who work with elders in order to validate the current findings with field-based research.

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# Baseline Gender Norms and Cohort Comparisons for Neulinger's "What Am I Doing?" Instrument

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*tot homines, quot sententiae*

Leisure is steeped in the tradition of objective accounts of events or periods of time. More recently, the *Zeitgeist* is a subjective perspective of leisure. This subjective perspective, which focuses on the "mind," can be credited, in large part, to the work of Neulinger (1967), initiated approximately two decades ago. The concepts promulgated by Neulinger (1974, 1981a, 1981b) and others (e.g., Ellis & Witt, 1984; Iso-Ahola, 1979; Mannell, 1978) have helped move leisure toward recognition as a science (Hultsman & Black, in press).

Neulinger (1981a, 1981b, 1982) also postulated the concepts of perceived freedom, intrinsic motivation, and positive affect as critical to the leisure experience. Perceived freedom is defined as the absence of constraint or the ability to make choices from available options (Deci, 1975). Intrinsic motivation is distinguished by performing tasks autotelically (Csikszentmihalyi, 1975; Duda, 1988; Lepper & Greene, 1975), and perceived freedom and intrinsic motivation are noted as the conditions necessary for the experience of leisure (Neulinger, 1981a). Positive affect is the causal result of both perceived freedom and intrinsic motivation and is a "barometer" both for how a person feels at a given time and for quality of life (Neulinger, 1986).

The "What Am I Doing?" (WAID) scale (Neulinger, 1986) was developed to evaluate the three constructs in Neulinger's (1981a) paradigm. Specifically, the WAID is a time-budget instrument used to obtain information about the activities in which a person engages over a 24 hour period, with 60 minutes as the time unit for each observation. Information is also collected about type, duration, location, and social nature of activities, and quantitative values (on scales of 0 to 100) are used to estimate the degree of perceived freedom, intrinsic motivation, and positive affect experienced during each activity.

In addition, the WAID constructs have been applied both empirically and theoretically. Empirically, the WAID has been successfully used in a number of studies of leisure to examine a variety of populations (Witt & Ellis, 1985). The populations investigated include the Mensa Society, high school and graduate students, retirees, women, and a general population sample (see Hultsman & Black, in press). Further research has been conducted that connects leisure with allied disciplines. For example, one group of investigators found that variables measured by the WAID discriminated between bulimic women and nonbulimic college students (Kaufman, McBride, Hultsman, & Black, 1988). Mean scores of bulimics on these variables were also significantly lower than those of nonbulimics who represented a wide variety of age cohorts from high school students to retirees (Black, Hultsman, McBride, & Kaufman, in press). Theoretically, new opportunities have also emerged for incorporating leisure constructs into model building. For example, the three WAID constructs are part of the basis of a new model for counseling service delivery which has been applied to leisure counseling, health counseling, career development, and community health programs for cardiovascular risk factor reduction (Black & Hultsman, 1988, 1989; DeLucia, Black, Loughead, & Hultsman, in press; Hultsman, Black, Seehafer, & Hovell, 1987).

Science, although advanced by theory and research, is also facilitated by the development and refinement of "instrumentation." Given the number of empirical studies and theoretical applications of

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the WAID and the growing prevalence of papers citing Neulinger's (1981a, 1981b) paradigm, it is it is increasingly important not only to evaluate the paradigm theoretically but also its instrumentation psychometrically. One preliminary step in psychometric development and scale standardization of the WAID is the establishment of norms (Anastasi, 1988; Cronbach, 1970; Jensen, 1980).

Neulinger (1981a) also recognized the importance of and called for the development of norms for the WAID. Further, he recommended that demographic data be collected relevant to responses on each of the subscales of the WAID. Because tests of this nature have no predetermined standards of passing or failing, norms are necessary to evaluate an individual's score. Norms represent the "normal" or average performance of others and permit the examiner to compare subjects with their peers (Cronbach, 1970). The absence of norms renders the interpretation of raw scores meaningless (Anastasi, 1988).

The purpose of the study was to establish baseline gender norms for the WAID for intersubject comparison. Several original data sets contributed by multiple investigators provided values used to construct norm tables. In addition, based on the aggregation of data sets, questions were addressed to note differences between men and women on each of the subscales of the WAID relative to various demographic characteristics.

# Method

## *Subjects*

Demographic characteristics of subjects are available in Tables 2 through 7. Subjects from four of the studies also came from rural, small town, suburban, and urban areas in the Midwest (Illinois and Indiana), the East (Pennsylvania and New York), and the South (North Carolina and Kentucky). The remaining study by Neulinger and Kopor (1981) did not specify a particular geographic region but indicated that subjects were from the United States.

## *Instrument Administration*

Investigators who collected four of the data sets used for norm development administered the WAID personally to groups of subjects (Hultsman, 1987; Hultsman & Russell, 1988; Russell, 1987; Seif, 1983) and one team of investigators mailed the WAID to participants (Neulinger & Kopor, 1981). Researchers in all five studies followed the instructions for test administration and scoring described by Neulinger (1981b, 1986).

## *Procedure*

*Identification of studies for norm development.* A computerized literature search in data bases germane to leisure was completed for the period 1977, the first year the WAID was available, to the present. The key words for the search were "perceived freedom," "intrinsic motivation," "positive affect," "quality of life," "leisure," and "Neulinger." A manual review was also conducted of the *Journal of Leisure Research*, *Leisure Sciences*, the *Therapeutic Recreation Journal*, *Leisure Studies*, the *Journal of Park and Recreation Administration*, and the *Journal of Expanding Horizons in Therapeutic Recreation*. The developer of the WAID was also contacted. Ultimately, nine citations, based on seven data sets, were located that reported the use of the WAID.

*Obtainment of data.* The data sets considered for inclusion in this study were obtained in three ways. Three data sets were acquired from studies conducted by the first author and a collaborator. Two data sets were provided by the author of the WAID. The author of the WAID also wrote and requested that the two remaining data sets be sent to the first author.

*Selection of data sets.* The data sets used in the analyses are noted under *Apparatus*. The data set reported in Bialeschki (1985, 1987) and Bialeschki and Henderson (1986), and the data set reported in Henderson and Bialeschki (1983) were not included. These data sets were not used because continuous data for each of the subscales of the WAID were coded as discrete values. Unfortunately, this metric is not convertible to the continuous scale established by the WAID protocol and the values were not consistent with those of the other studies.

*Data management.* Printouts for the five data sets were examined to identify common independent variables. A data file containing the variables common to the studies was created for each data set. Next, these variables were recoded into categories that encompassed the categories used in the original studies. Last, the data files were concatenated.

## *Variables*

*Independent.* There were six independent variables common to the five data sets. These variables were gender, age, educational level,

income, living arrangement, and ethnic background. Ethnic background, however, was not considered in the analyses for two reasons: (a) one study with 130 subjects did not report ethnicity (Russell, 1987) and (b) of the remaining 350 subjects, only 15 were nonwhite. One factor, subpopulation, constant within each study, was also treated as an independent variable and examined for its effect as a concomitant variable. The specific subpopulations are identified in Table 7.

*Dependent.* There were three dependent variables. These variables represented the subscales of the WAID and included "choice" (perceived freedom), "reason" (intrinsic motivation), and "feeling" (positive affect). Each of these variables was measured continuously on a scale of 0 to 100.

### *Data Analysis*

*Normative tables.* Normative tables were generated for the three subscales of the WAID and each of the demographic characteristics evaluated (see Tables 1 through 7).

*Comparative analyses.* Differences for subjects were evaluated for each dependent variable according to gender, age, educational level, income, living arrangement, and subpopulation. Only significant differences are reported however.

*Normality.* Because the samples represented different populations, the concatenated data set was examined for skewness, kurtosis, and homogeneity of variance. Values for skewness and kurtosis were compared to tables and figures presented by Bowman and Shenton (1975). The observed values did not deviate from expectation when compared to the tabled values and contours in figures. Cochran's and Barlett's tests were computed to evaluate homogeneity of variance (Winer, 1971). In those cases for which either variance evaluation statistic was significant, an appropriate nonparametric omnibus test and *a posteriori* contrasts were calculated (Marascuilo & McSweeney, 1977). Concordantly, appropriate *post hoc* tests were calculated if the computed parametric omnibus test was significant (Winer, 1971).

## Results

### *Normative Tables*

Table 1 shows values for the WAID by subscale. Examination of descriptive statistics indicated that subjects reported greater perceived freedom relative to intrinsic motivation and positive affect. All values for each of these subscales were within the highest quartile.

Table 1
*Waid Subscale Values for Subjects Sampled*

| Variable | M | SD | Minimum/Maximum |
|---|---|---|---|
| Perceived Freedom | 82.34 | 14.90 | 29/100 |
| Intrinsic Motivation | 75.50 | 16.64 | 18/100 |
| Positive Affect | 76.79 | 14.62 | 13/100 |

*Note.* Values for each subscale are based on a total sample of 480 subjects.

Tables 2 through 7 show demographic characteristics of subjects according to gender. The tables indicated that slightly more than half of the subjects were women, age categories were relatively equally distributed across the life span, subjects' education ranged from less than high school to postgraduate work, income categories were relatively evenly distributed, and both single and cohabitating subjects were represented.

### *Comparative Analyses*

*Gender.* Table 2 presents summary statistics for each of the WAID subscales by gender. The nonparametric Mann-Whitney U tests indicated a statistically significant difference for perceived freedom, intrinsic motivation, and positive affect ($Z = -2.67$, $p < .0077$; $Z = -2.85$, $p < .0043$; $Z = -3.50$, $p < .0005$, respectively.) Significant differences in scores indicated that women scored higher than men on each of these dependent variables.

*Age.* Table 3 displays the WAID subscales according to age nested within gender. The nonparametric Kruskal-Wallace one-way analysis of variance (ANOVA) showed a significant difference for men among age categories on perceived freedom, $H$ (7, $N = 197$) = 30.70, $p < .0000$. A separate parametric one-way ANOVA indicated a significant difference for male subjects among age categories on positive affect, $F$ (7, 189) = 4.55, $p < .0001$.

Women differed significantly across age categories on perceived freedom, H (7, N = 283) = 69.20, p < .0000, intrinsic motivation and positive affect, F (7, 275) = 16.31, 12.08; p < .0000, respectively.

Multiple comparisons of mean values were computed subsequent to each ANOVA. An equivalent to the Scheffe' *a posteriori* test for nonparametric data (Marascuilo & McSweeney, 1977) and Scheffe' tests was selected to contrast mean values. Comparisons that differed significantly from each other by a probability of .05 or less are reported in the paragraph below. Mean differences in contrast can be calculated from values reported in Table 3.

Male subjects in the 75-84 and 85-94 year old age cohorts scored significantly lower on perceived freedom than subjects in the 15-24 age range; men between 75-84 scored significantly higher on positive affect than those between 15-24, 25-34, and 35-44. Female subjects in the 65-74 and 75-84 year old cohorts scored significantly higher on each of the subscales than their counterparts in the 15-24 and 25-34 year old cohorts; women between 65-74 scored significantly higher on each of the subscales than women between 35-44; women 65-74 and 75-84 scored significantly higher on intrinsic motivation than women 55-64 and those between 75-84 also scored significantly higher on intrinsic motivation than those between 35-44; women between 75-84 scored significantly higher on positive affect than women between 15-24, 35-44, and 85-94.

*Education.* Table 4 provides data for various levels of education. Female subjects significantly differed on perceived freedom, F (2, 280) = 5.33, p < .005, intrinsic motivation and positive affect, H (2, N = 283) = 13.63, 13.14; p < .001, respectively. Women with some college education scored significantly higher on each of the three subscales than women with a college education or more. Additionally, women with some college scored significantly higher on perceived freedom than women with a high school education or less.

*Income and living arrangement.* Table 5 presents levels of income and Table 6 presents living arrangement. The nonparametric Mann-Whitney U test indicated that men who were cohabitating scored significantly higher on positive affect than men who were single, Z (1, N = 197) = -3.40, p < .0007.

*Subpopulations.* Table 7 presents data for each subpopulation by gender. Male subjects significantly differed across subpopulations on perceived freedom, H(4, N = 197) = 29.66, p < .0000, intrinsic motivation, F (4, 192) - 3.14, p < .02, and positive affect, F (4, 192) = 6.14, p < .0001. Female subjects also significantly differed across subpopulations on perceived freedom and intrinsic motivation, H (4, N = 283) = 68.33, 76,65; p < .0000, respectively, and positive affect, F (4, 278) = 21.69, p < .0000.

Table 2
*Waid Values for Gender*

| Gender | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|
| M | 197 | 80.00/15.88 | 72.92/16.68 | 74.29/14.03 |
| F | 283 | 83.97/13.97 | 77.29/16.40 | 78.53/14.79 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 3
*WAID Values for Age Groups by Gender*

| Gender | Age (yrs.) | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| M | 15-24 | 72 | 75.99/14.53 | 71.03/16.91 | 71.00/13.52 |
| F | | 96 | 79.38/13.26 | 73.51/15.30 | 74.20/13.86 |
| M | 25-34 | 49 | 80.49/17.41 | 71.69/16.72 | 72.31/13.65 |
| F | | 53 | 78.45/14.42 | 68.00/14.09 | 71.13/12.89 |
| M | 35-44 | 24 | 77.08/17.32 | 70.21/15.68 | 71.63/12.25 |
| F | | 17 | 80.00/13.44 | 64.35/15.91 | 70.41/14.40 |
| M | 45-54 | 19 | 80.47/13.86 | 72.00/13.30 | 77.32/13.30 |
| F | | 10 | 85.40/ 9.69 | 79.80/14.97 | 79.60/11.75 |
| M | 55-64 | 6 | 79.17/20.53 | 80.33/16.10 | 77.67/ 9.79 |
| F | | 5 | 88.40/ 8.17 | 63.40/ 7.10 | 80.00/ 8.46 |
| M | 65-74 | 7 | 88.71/14.29 | 74.71/19.70 | 83.71/12.12 |
| F | | 26 | 94.15/ 7.51 | 89.54/11.01 | 90.00/ 8.49 |
| M | 75-84 | 9 | 94.33/ 4.80 | 82.67/19.52 | 91.44/ 8.02 |
| F | | 53 | 92.21/11.06 | 88.43/12.60 | 86.30/14.24 |
| M | 85-94 | 11 | 92.73/ 7.04 | 85.09/13.85 | 83.36/16.04 |
| F | | 23 | 86.70/15.42 | 86.49/12.54 | 87.96/11.93 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 4
*WAID Values for Education Levels by Gender*

| Gender | Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| M | High School | 32 | 79.59/10.12 | 76.69/12.68 | 72.97/11.50 |
| F | or Less | 53 | 82.25/14.32 | 81.25/12.67 | 80.19/14.27 |
| M | Some College | 32 | 82.53/13.95 | 72.88/17.23 | 76.06/16.03 |
| F | | 63 | 88.95/12.98 | 82.30/14.99 | 84.56/12.42 |
| M | College Degree | 133 | 79.48/17.41 | 72.02/17.35 | 74.18/14.12 |
| F | or More | 167 | 82.25/13.51 | 78.11/14.82 | 77.92/15.47 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 5
*WAID Values for Income Levels by Gender*

| Income Level | Gender | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| Less than | M | 24 | 75.13/19.79 | 68.92/21.82 | 71.62/15.92 |
| $ 5,000 | F | 34 | 81.35/14.85 | 76.82/15.10 | 78.24/13.74 |
| $5,000 to | M | 14 | 86.86/10.36 | 77.93/13.52 | 76.07/12.01 |
| $ 6,999 | F | 29 | 82.24/17.09 | 78.48/19.77 | 77.28/18.20 |
| $ 7,000 to | M | 10 | 74.10/18.65 | 71.10/15.68 | 71.10/17.62 |
| $ 8,999 | F | 22 | 82.59/10.44 | 73.45/14.05 | 75.45/12.00 |
| $ 9,000 to | M | 7 | 84.43/ 8.90 | 73.43/15.66 | 75.57/12.12 |
| $10,999 | F | 18 | 83.33/14.19 | 71.11/17.10 | 78.28/14.88 |
| $11,000 to | M | 11 | 82.27/15.57 | 77.00/16.55 | 76.91/ 8.78 |
| $12,999 | F | 23 | 82.00/13.59 | 78.57/15.79 | 80.17/11.98 |
| $13,000 to | M | 18 | 81.39/16.82 | 72.00/19.50 | 74.50/14.08 |
| $14,999 | F | 26 | 87.42/15.28 | 82.19/17.67 | 83.15/16.00 |
| $15,000 to | M | 32 | 81.72/16.78 | 72.56/15.30 | 73.81/15.27 |
| $19,999 | F | 46 | 85.46/11.80 | 76.07/15.86 | 79.39/13.33 |
| $20,000 or | M | 58 | 80.52/16.50 | 72.31/17.00 | 76.00/15.12 |
| More | F | 65 | 87.69/13.94 | 78.35/18.01 | 79.39/16.40 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 6
*WAID Values for Living Arrangements by Gender*

| Living Arrangement | Gender | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| Single | M | 118 | 78.46/16.21 | 71.40/16.79 | 71.41/13.48 |
| | F | 223 | 84.06/13.96 | 77.91/16.22 | 78.87/15.16 |
| Cohabitating | M | 79 | 82.29/15.20 | 75.19/16.35 | 78.59/13.80 |
| | F | 60 | 83.62/14.10 | 75.00/16.98 | 77.23/13.40 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 7
*WAID Values for Specific Subpopulations by Gender*

| Subpopulation | Gender | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| Mensa* | M | 57 | 78.65/15.95 | 69.21/16.55 | 73.78/13.64 |
| | F | 33 | 79.11/14.34 | 68.88/14.78 | 69.86/14.90 |
| General Population | M | 20 | 79.34/15.33 | 73.94/14.35 | 70.26/15.10 |
| | F | 40 | 80.61/16.26 | 70.22/17.75 | 75.06/15.93 |
| Graduate Students | M | 71 | 77.56/17.85 | 71.37/17.32 | 72.21/13.58 |
| | F | 86 | 79.15/14.83 | 69.91/17.16 | 72.91/14.25 |
| Retirees | M | 26 | 93.00/ 7.81 | 82.17/17.36 | 85.99/13.20 |
| | F | 104 | 91.49/11.57 | 87.74/12.46 | 87.63/12.32 |
| High School Students | M | 23 | 76.20/ 8.80 | 75.52/12.46 | 71.91/ 9.68 |
| | F | 20 | 75.33/10.09 | 77.67/ 7.17 | 71.80/12.03 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations. *Mensa = Society for the Intellectually Elite.

Multiple comparisons indicated that male retirees scored significantly higher than high school students and Mensa subjects on each of the three subscales; male retirees also scored significantly higher than men in the general population and graduate student samples on perceived freedom and positive affect. Female retirees scored significantly higher than females in each of the other subpopulations on each of the three subscales.

## Discussion

This study provides baseline norms for the WAID according to gender of the respondent. The norms offer meaning to an individual's scores by permitting comparison of values to a "reference" group on each subscale of the WAID. Interpretation of individual scores are based on the relative relationship of subjects' subscale values to scores of individuals with similar characteristics. The tables provide researchers and clinicians with the capability to compare the results of their administrations of the WAID to the composite findings reported in this study.

There are a variety of ways to compare individual scores. First, the tables are arranged to permit comparisons. Scores of individuals or groups can be related to the means and standard deviations of the five aggregated samples on each of the subscales of the WAID and according to breakdowns on gender, age, education, income, living arrangement, and by specific subpopulation. Second, individuals can be compared by the use of methods standard to psychometrics. Raw scores may be converted to one of several metrics such as percentile ranks, standard scores (e.g., z scores), transformed standard scores (T scores), and stanines (see Witte, 1985, Chapter 6, pp. 61-86). A general discussion of these types of scores can be found in Anastasi (1988) and a specific application in leisure is provided by Witt and Ellis (1987, pp. 84-87).

Care should be used though in interpreting norms despite their utility for clinicians and/or researchers. There are at least two factors that need to be taken into account when conclusions are drawn from test scores. First, and it should be emphasized, the present data represent preliminary norms only. This does not mean, however, that the norms are unusable or are biased; rather, conservatism should be applied when scores are compared and until there is further development of additional data bases. (For a discussion of the comparative merits of national versus local norms, see Jensen, 1980 and

Witt & Ellis, 1987.) Second, it should be recalled that "norms are not 'standards'" (Cronbach, 1970, p. 107). For example, it is not known how much perceived freedom, intrinsic motivation, and positive affect a person should experience during an average day (Neulinger, 1981a).

Several interesting conclusions emerged from the results of the comparative analyses. In general, distinct age cohorts of women compared to men, across the life-span, score higher on the three subscales of the WAID. Within categories of gender, older women and those with moderate levels of education score higher than younger women and those with lower or higher levels of education. Conversely, older men score lower on perceived freedom although they score higher on positive affect than younger men; and cohabitating men score higher on positive affect than single men. Regardless of gender, retirees score higher on the WAID than all other subpopulations.

The findings are relevant to theory and suggest opportunities for future research. Reasons for enhanced quality of life for women seem a primary focus in order to mediate apparent leisure deficits for men. Bishop and Witt (1970) found that choice of leisure activities was more situationally dependent for women than for men. Iso-Ahola (1979) noted that women appreciate and are more open toward leisure than men. Gentry and Doering (1979) concluded that gender is influential in determining leisure attitudes and behavior. The issue, however, is succinctly summarized by Neulinger (1981a, p. 117): "To repeat the rather obvious, sex is a variable that ought to be taken into account when designing and analyzing leisure research. Analyses should be routinely carried out separately for males and females . . .".

In summary, this paper serves as a heuristic illustration of the symbiosis of research and practice. The priority has not been assigned to one focus over the other but to the combination in order to benefit both researchers and counselors/clinicians. In other words, the data may be used dually to generate or test theory and to provide meaning to test scores. Further information is needed for individual and/or group comparisons of clients or research subjects; other norm tables, based on criteria common to the development of norms such as a breakdown according to age, should be provided. Important questions could also be addressed in regard to trends for distinct groups of subjects across the life span that may be of value to both theory and application.

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# Baseline Age Norms for Neulinger's "What Am I Doing?" Instrument

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*Who well lives, long lives; for this age of ours*
*Should not be numbered by years, days, and hours.*
(De Salluste, Seigneur Du Bartas)

This paper provides baseline age norms for Neulinger's (1986) "What Am I Doing?" (WAID) scale. The companion paper by Hultsman and Black (1989) provided baseline gender norms for the WAID. In both papers, normative tables are presented based on an aggregation of five data sets collected in the Midwest (Illinois and Indiana), the East (Pennsylvania and New York), and the South (North Carolina and Kentucky). Cohort comparisons based on gender indicated that women scored significantly higher than men on each of the three subscales of the WAID, perceived freedom, intrinsic motivation, and positive affect. The following cohort comparisons for female respondents were also statistically significant: older women and those with moderate levels of education scored higher than younger women and those with lower or higher levels of education. Conversely, statistical tests for male participants indicated the following significant differences: older men scored lower on perceived freedom although higher on positive affect than younger men; cohabitating men scored higher on positive affect than single men; and regardless of gender, retirees scored higher than other subpopulations. In the companion paper, the authors concluded that the findings serve as a heuristic illustration of the symbiosis of research and practice, normative gender data provide investigators and counselors/clinicians information important to theory and application, and age norms would increase know-ledge relative to WAID values at different stages across the life span.

A review was completed of a variety of test manuals to identify the independent variables most commonly reported in norm tables. Three "mental ability" tests were examined, Stanford-Binet Intelligence Scale (Thorndike, Hagen, & Sattler, 1986), Slosson Intelligence Test (SIT) for Children and Adults (Armstrong & Jensen, 1981), and the Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981). Three tests for cognitive dysfunction" were also reviewed, Test of Auditory-Perceptual Skills (Gardner, 1985), Spelt- II: Structured Photographic Expressive Language Test-II (Werner & Kresheck, 1983), and Test of Visual-Perceptual Skills (Gardner, 1982). Two achievement tests were selected, KeyMath-Revised: A Diagnostic Inventory of Essential Mathematics (Connolly, 1988) and Boehm Test of Basic Concepts-Revised (Boehm, 1986). Four tests related to leisure were examined, The Leisure Diagnostic Battery (Witt & Ellis, 1987), The Study of Leisure (Neulinger, 1981a), The Leisure Satisfaction Scale (Ragheb & Beard, 1980), and The Leisure Activities Blank (McKechnie, 1975). In each case, although the information in some instances represented selected groups such as children, test score results were broken down according to age norms. The next most frequent norm classification was gender. These findings parallel recommendations that tests report scores for groups differing in age, sex, and other equally important variables (American Psychological Association, 1985; Cronbach, 1970).

The purpose of the study was to establish baseline norms for the independent variable, age, most frequently reported in the literature in order to provide a basis for intersubject comparison of WAID scores. The intent was to furnish more complete information for clinicians and researchers

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who wish to use the WAID so an individual's scores can be compared in terms of age as well as gender. In addition, in light of the symbiosis between theory and practice noted by Hultsman and Black (1989), norm tables were generated to serve as a guide for sample selection for continued norm development and for future research.

## Method

Information pertinent to Subjects, Instrument Administration, and Procedure is available in the companion paper referenced in the Introduction and is not reviewed here for reasons of space conservation. It should be noted that, relative to the gender norms, there was a larger number of cohorts in the present study which resulted in some incomplete cells in tables. Consequently, statistical comparisons of cohorts were not computed. Incomplete cells were a function of the use of standard procedures to determine the appropriate interval width of the age range (Witte, 1985, p. 13), and are also due, in part, to the number of data sets available and to the specific subpopulations chosen for study by the original investigators.

## Results

### *Normative Tables*

*WAID subscales.* Table 1 shows values for the WAID by subscale. Values for perceived freedom were higher than for either intrinsic motivation or positive affect in each age cohort. Subscale values ranged upwards from the higher end of the third quartile.

*Age.* Table 2 presents characteristics of subjects by gender according to age. This table indicates that gender was relatively equally distributed within age ranges with the exception of the upper age ranges in which there were more women, a characteristic that presently reflects mortality rates in the United States within the general population (Insel & Roth, 1985). Women generally scored higher on all subscales of the WAID.

Table 1
*WAID Values for Age Group*

| Age (yrs.) | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|
| 15-24 | 168 | 77.92/13.88 | 72.45/16.00 | 72.83/13.77 |
| 25-34 | 102 | 79.43/15.88 | 69.78/15.44 | 71.70/13.20 |
| 35-44 | 41 | 78.29/15.71 | 67.78/15.85 | 71.12/13.02 |
| 45-54 | 29 | 82.17/12.62 | 74.69/14.14 | 78.10/12.63 |
| 55-64 | 11 | 83.36/16.15 | 72.64/15.16 | 78.73/ 8.83 |
| 65-74 | 33 | 93.00/ 9.35 | 86.39/14.33 | 88.67/ 9.52 |
| 75-84 | 62 | 92.52/10.38 | 87.60/13.76 | 87.05/13.59 |
| 85-94 | 34 | 88.65/13.48 | 86.03/12.79 | 86.47/13.33 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 2
*WAID Values for Gender by Age Group*

| Age (yrs.) | Gender | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | M | 72 | 75.99/14.53 | 71.03/16.91 | 71.00/13.52 |
| | F | 96 | 79.38/13.26 | 73.51/15.30 | 74.20/13.86 |
| 25-34 | M | 49 | 80.49/17.41 | 71.69/16.72 | 72.31/13.65 |
| | F | 53 | 78.45/14.42 | 68.00/14.09 | 71.13/12.89 |
| 35-44 | M | 24 | 77.08/17.32 | 70.21/15.68 | 71.63/12.25 |
| | F | 17 | 80.00/13.44 | 64.35/15.91 | 70.41/14.40 |
| 45-54 | M | 19 | 80.47/13.86 | 72.00/13.30 | 77.32/13.30 |
| | F | 10 | 85.40/ 9.69 | 79.80/14.97 | 79.60/11.75 |
| 55-64 | M | 6 | 79.17/20.53 | 80.33/16.10 | 77.67/ 9.79 |
| | F | 5 | 88.40/ 8.17 | 63.40/ 7.40 | 80.00/ 8.46 |
| 65-74 | M | 7 | 88.71/14.29 | 74.71/19.70 | 83.71/12.12 |
| | F | 26 | 94.15/ 7.51 | 89.54/11.01 | 90.00/ 8.49 |
| 75-84 | M | 9 | 94.33/ 4.80 | 82.67/19.52 | 91.44/ 8.02 |
| | F | 53 | 92.21/11.06 | 88.43/12.60 | 86.30/14.24 |
| 85-94 | M | 11 | 92.73/ 7.04 | 85.09/13.85 | 83.36/16.04 |
| | F | 23 | 86.70/15.42 | 86.49/12.54 | 87.96/11.93 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Figure 1 shows a visual display of values for positive affect for gender by categories of age. Positive affect was graphed because it is the "outcome" measure of the WAID (Neulinger, 1986) and the pattern across age categories generally reflected the pattern observed for perceived freedom. Positive affect was compared to perceived freedom because the latter is considered more salient than intrinsic motivation in this experiential paradigm of leisure (Neulinger, 1981b). Separate F tests for trends indicated that linear regression was the highest degree equation necessary to describe the respective data sets for men and women (Kerlinger & Pedhazur, 1973, pp. 208-214). The Pearson correlation between positive affect and age for men was significant, $r\ (195) = .34$, $p < .0000$ as was the correlation for women, $r\ (281) = .45$, $p < .0000$. These findings suggest that positive affect, regardless of gender, tends to increase linearally and significantly as a function of age.

*Education.* Table 3 suggests that subjects within age ranges tended to be relatively well educated which, in part, may reflect the subpopulations sampled. While the pattern of WAID subscale scores by age was more variable than for gender, a frequency count indicated that individuals with low educational levels tended to score higher.

*Income.* Table 4 shows that income was normally distributed across age ranges; lower income levels were noted for younger and older subjects and higher levels occurred for subjects during the "work" years. Values for WAID subscales tended to be evenly distributed by income level.

*Living arrangement.* Table 5 denotes that most subjects were single which also may have been partly due to the populations sampled. A frequency count indicated that WAID subscale scores for single subjects were generally higher than for cohabitating subjects.

*Subpopulations.* Table 6 reveals that the samples' ages are relatively characteristic of the subpopulations studied. Visual inspection indicated that retirees scored higher on each of the subscales of the WAID.

*Figure 1.* Mean Positive Affect Scores for Men and Women for Each of Eight Age Categories on Neulinger's (1986) "What Am I Doing?" Instrument.

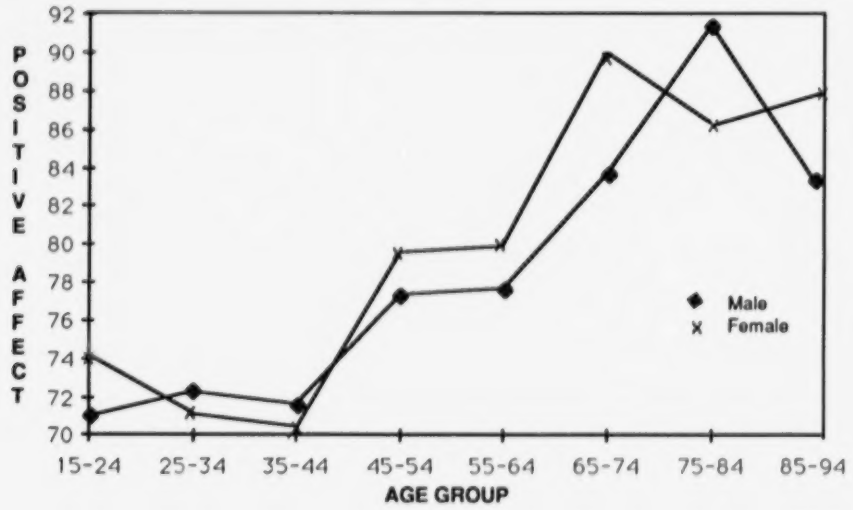


Table 3
*WAID Values for Education Levels by Age Group*

| Age (yrs.) | Education Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | High School or Less | 46 | 77.02/10.28 | 76.04/10.28 | 71.87/10.74 |
| | Some College | 10 | 80.90/10.64 | 65.40/14.89 | 72.20/16.03 |
| | College Degree or More | 112 | 78.03/15.38 | 71.60/17.72 | 73.28/14.73 |
| 25-34 | High School or Less | 7 | 79.29/12.69 | 75.71/12.00 | 73.43/12.23 |
| | Some College | 19 | 78.37/11.01 | 68.16/12.51 | 71.47/13.18 |
| | College Degree or More | 76 | 79.71/17.25 | 69.63/16.37 | 71.59/13.45 |
| 35-44 | High School or Less | 1 | 67.00/ 0 | 53.00/ 0 | 77.00/ 0 |
| | Some College | 6 | 67.50/22.13 | 63.33/19.11 | 75.00/10.84 |
| | College Degree or More | 34 | 80.53/13.96 | 69.00/15.41 | 70.26/13.53 |
| 45-54 | High School or Less | 4 | 84.50/ 8.66 | 76.50/15.72 | 81.00/21.21 |
| | Some College | 8 | 84.13/15.42 | 73.38/10.91 | 81.13/13.02 |
| | College Degree or More | 17 | 80.71/12.45 | 74.88/15.80 | 76.00/10.44 |

Table 3 Continued
*WAID Values for Education Levels by Age Group*

| Age (yrs.) | Education Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 55-64 | High School or Less | 1 | 94.00/ 0 | 79.00/ 0 | 70.00/ 0 |
| | Some College | 1 | 94.00/ 0 | 51.00/ 0 | 74.00/ 0 |
| | College Degree or More | 9 | 81.00/17.07 | 74.33/14.85 | 80.22/ 9.09 |
| 65-74 | High School or Less | 4 | 95.50/ 6.61 | 89.25/ 6.50 | 91.75/ 4.19 |
| | Some College | 13 | 92.00/11.14 | 88.31/11.28 | 89.54/10.41 |
| | College Degree or More | 16 | 93.19/ 8.71 | 84.13/17.81 | 87.19/ 9.87 |
| 75-84 | High School or Less | 14 | 94.71/ 7.99 | 92.00/10.70 | 87.93/14.05 |
| | Some College | 25 | 94.08/ 6.88 | 89.24/ 8.87 | 88.80/ 9.07 |
| | College Degree or More | 23 | 89.48/13.92 | 83.13/18.32 | 84.61/17.19 |
| 85-94 | High School or Less | 8 | 75.13/17.56 | 81.13/16.01 | 87.00/11.51 |
| | Some College | 13 | 94.39/ 8.88 | 90.08/13.56 | 86.46/15.79 |
| | College Degree or More | 13 | 91.23/ 8.73 | 85.00/ 9.02 | 86.15/12.70 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 4
*WAID Values for Income Levels by Age Group*

| Age (yrs.) | Income Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | Less than $ 5,000 | 46 | 75.83/17.27 | 72.04/19.41 | 73.26/14.86 |
| | $ 5,000 to $ 6,999 | 22 | 79.59/16.04 | 73.63/18.80 | 72.41/17.02 |
| | $ 7,000 to $ 8,999 | 17 | 76.06/14.64 | 67.00/14.34 | 69.59/14.78 |
| | $ 9,000 to $10,999 | 6 | 83.67/11.74 | 66.17/20.37 | 79.00/13.67 |
| | $11,000 to $12,999 | 13 | 81.31/ 9.92 | 73.85/13.91 | 78.15/ 7.84 |
| | $13,000 to $14,999 | 5 | 77.00/15.94 | 67.60/14.67 | 73.40/15.55 |
| | $15,000 to $19,999 | 14 | 84.21/11.18 | 71.64/15.14 | 74.21/13.23 |
| | $20,000 or More | 2 | 89.00/ 4.24 | 55.00/12.73 | 52.00/25.46 |

Table 4 Continued
*WAID Values for Income Levels by Age Group*

| Age (yrs.) | Income Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 25-34 | Less than $ 5,000 | 5 | 89.80/ 6.10 | 73.00/10.46 | 81.20/11.12 |
| | $ 5,000 to $ 6,999 | 11 | 85.73/14.50 | 76.82/17.53 | 75.27/13.89 |
| | $ 7,000 to $ 8,999 | 8 | 76.63/ 9.74 | 74.50/ 8.28 | 72.13/ 5.94 |
| | $ 9,000 to $10,999 | 9 | 79.22/11.46 | 65.22/11.11 | 69.56/14.43 |
| | $11,000 to $12,999 | 8 | 77.13/18.36 | 68.00/19.39 | 74.13/ 9.48 |
| | $13,000 to $14,999 | 14 | 74.43/18.33 | 60.14/17.54 | 67.14/14.63 |
| | $15,000 to $19,999 | 26 | 81.50/16.58 | 70.85/14.49 | 71.27/13.58 |
| | $20,000 or More | 21 | 76.48/17.59 | 71.24/15.60 | 70.95/14.59 |
| 35-44 | Less than $ 5,000 | 1 | 66.00/ 0 | 57.00/ 0 | 61.00/ 0 |
| | $ 5,000 to $ 6,999 | 0 | | | |
| | $ 7,000 to $ 8,999 | 0 | | | |
| | $ 9,000 to $10,999 | 0 | | | |
| | $11,000 to $12,999 | 3 | 73.00/24.43 | 77.00/ 5.57 | 77.33/10.97 |
| | $13,000 to $14,999 | 2 | 86.50/ 4.95 | 79.50/13.44 | 82.00/ 1.41 |
| | $15,000 to $19,999 | 10 | 77.80/16.29 | 67.70/15.01 | 75.20/11.83 |
| | $20,000 or More | 25 | 78.96/15.66 | 66.20/17.16 | 68.28/13.63 |
| 45-54 | Less than $ 5,000 | 0 | | | |
| | $ 5,000 to $ 6,999 | 0 | | | |
| | $ 7,000 to $ 8,999 | 0 | | | |
| | $ 9,000 to $10,999 | 1 | 83.00/ 0 | 58.00/ 0 | 60.00/ 0 |
| | $11,000 to $12,999 | 0 | | | |
| | $13,000 to $14,999 | 1 | 87.00/ 0 | 85.00/ 0 | 75.00/ 0 |
| | $15,000 to $19,999 | 4 | 81.75/ 4.57 | 82.75/12.04 | 73.50/18.74 |
| | $20,000 or More | 23 | 82.00/14.10 | 73.57/14.28 | 79.83/11.52 |
| 55-64 | Less than $ 5,000 | 0 | | | |
| | $ 5,000 to $ 6,999 | 0 | | | |
| | $ 7,000 to $ 8,999 | 1 | 94.00/ 0 | 79.00/ 0 | 70.00/ 0 |
| | $ 9,000 to $10,999 | 0 | | | |
| | $11,000 to $12,999 | 0 | | | |
| | $13,000 to $14,999 | 0 | | | |
| | $15,000 to $19,999 | 1 | 76.00/ 0 | 71.00/ 0 | 81.00/ 0 |
| | $20,000 or More | 9 | 83.00/17.46 | 72.11/16.78 | 79.44/ 9.32 |

Table 4 Continued

*WAID Values for Income Levels by Age Group*

| Age (yrs.) | Income Level | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 65-74 | Less than $ 5,000 | 2 | 100.00/ 0 | 84.50/ 2.12 | 90.00/ 0 |
| | $ 5,000 to $ 6,999 | 2 | 92.50/10.61 | 94.00/ 8.49 | 93.50/ 9.20 |
| | $ 7,000 to $ 8,999 | 0 | | | |
| | $ 9,000 to $10,999 | 0 | | | |
| | $11,000 to $12,999 | 2 | 98.00/ 2.83 | 97.00/ 1.41 | 87.50/14.85 |
| | $13,000 to $14,999 | 3 | 96.67/ 4.16 | 95.67/ 2.52 | 91.33/ 4.04 |
| | $15,000 to $19,999 | 8 | 90.38/ 9.96 | 87.50/ 8.77 | 89.75/ 5.34 |
| | $20,000 or More | 16 | 92.19/10.63 | 82.10/18.31 | 87.00/12.20 |
| 75-84 | Less than $ 5,000 | 2 | 97.00/ 4.24 | 91.50/12.02 | 85.50/13.44 |
| | $ 5,000 to $ 6,999 | 3 | 99.33/ 1.15 | 92.67/ 7.02 | 82.67/12.66 |
| | $ 7,000 to $ 8,999 | 6 | 93.00/ 7.10 | 85.50/14.31 | 90.17/ 7.25 |
| | $ 9,000 to $10,999 | 7 | 95.29/ 5.56 | 88.86/ 9.21 | 85.71/ 8.75 |
| | $11,000 to $12,999 | 5 | 89.80/10.83 | 93.80/ 2.59 | 83.00/19.91 |
| | $13,000 to $14,999 | 8 | 95.38/ 5.66 | 92.13/ 8.71 | 90.00/10.25 |
| | $15,000 to $19,999 | 12 | 89.75/11.54 | 78.08/19.05 | 84.83/15.81 |
| | $20,000 or More | 19 | 91.05/13.92 | 89.05/14.15 | 88.63/15.95 |
| 85-94 | Less than $ 5,000 | 2 | 86.00/19.80 | 89.00/ 8.49 | 95.50/ 6.36 |
| | $ 5,000 to $ 6,999 | 5 | 84.80/14.50 | 87.20/12.72 | 90.00/13.77 |
| | $ 7,000 to $ 8,999 | 0 | | | |
| | $ 9,000 to $10,999 | 1 | 63.00/ 0 | 65.00/ 0 | 89.00/ 0 |
| | $11,000 to $12,999 | 3 | 84.33/ 1.53 | 85.33/ 4.16 | 86.33/ 1.15 |
| | $13,000 to $14,999 | 11 | 90.73/13.58 | 89.55/ 8.58 | 87.55/12.93 |
| | $15,000 to $19,999 | 3 | 89.00/19.05 | 86.67/14.74 | 86.33/12.34 |
| | $20,000 or More | 8 | 96.75/ 4.74 | 85.00/18.57 | 80.00/18.88 |

*Note.* Numbers that precede slash mark are means and numbers that succeed slash marks are standard deviations. The number of zeros for age groups and income was expected due to the large number of categories for these two variables.

Table 5
*WAID Values for Living Arrangement by Age*

| Age (yrs.) | Living Arrangements | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | Single | 156 | 77.89/14.11 | 72.69/16.27 | 73.04/13.93 |
| | Cohabitating | 12 | 78.33/10.88 | 69.33/12.06 | 70.00/11.50 |
| 25-34 | Single | 72 | 80.14/15.61 | 68.39/15.41 | 71.00/13.22 |
| | Cohabitating | 30 | 78.03/16.70 | 73.10/15.26 | 73.37/13.24 |
| 35-44 | Single | 14 | 79.29/15.61 | 69.21/14.11 | 71.00/13.77 |
| | Cohabitating | 27 | 77.78/16.04 | 67.04/16.89 | 71.19/12.89 |
| 45-54 | Single | 8 | 82.75/10.59 | 75.75/13.07 | 73.00/14.10 |
| | Cohabitating | 21 | 81.95/13.55 | 74.29/14.81 | 80.05/11.80 |
| 55-64 | Single | 1 | 94.00/ 0 | 65.00/ 0 | 88.00/ 0 |
| | Cohabitating | 9 | 81.00/17.07 | 74.33/16.42 | 76.67/ 8.44 |
| 65-74 | Single | 16 | 95.19/ 7.10 | 90.44/10.09 | 91.38/ 6.07 |
| | Cohabitating | 17 | 90.94/10.88 | 82.59/16.84 | 86.12/11.51 |
| 75-84 | Single | 46 | 91.91/11.76 | 88.02/13.42 | 85.91/15.13 |
| | Cohabitating | 16 | 94.25/ 4.41 | 86.38/15.10 | 90.31/ 6.98 |
| 85-94 | Single | 27 | 88.19/14.80 | 86.48/11.87 | 86.67/12.62 |
| | Cohabitating | 7 | 90.43/ 6.78 | 84.29/16.87 | 85.71/16.91 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations.

Table 6
*WAID Values for Specific Subpopulations by Age*

| Age (yrs.) | Subpopulations | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | High School Students | 43 | 75.77/ 9.38 | 76.51/10.30 | 71.84/10.73 |
| 25-34 | | 0 | | | |
| 35-44 | | 0 | | | |
| 45-54 | | 0 | | | |
| 55-64 | | 0 | | | |
| 65-74 | | 0 | | | |
| 75-84 | | 0 | | | |
| 85-94 | | 0 | | | |

Table 6 Continued
*WAID Values for Specific Subpopulations by Age*

| Age (yrs.) | Subpopulations | n | Perceived Freedom | Intrinsic Motivation | Positive Affect |
|---|---|---|---|---|---|
| 15-24 | Graduate Students | 92 | 77.47/16.29 | 71.38/18.21 | 73.01/14.92 |
| 25-34 | | 52 | 79.88/16.65 | 69.67/16.31 | 72.71/12.41 |
| 35-44 | | 13 | 79.85/14.71 | 68.46/13.09 | 69.54/12.63 |
| 45-54 | | 0 | | | |
| 55-64 | | 0 | | | |
| 65-74 | | 0 | | | |
| 75-84 | | 0 | | | |
| 85-94 | | 0 | | | |
| 15-24 | Mensa* | 7 | 76.00/ 9.97 | 58.86/11.75 | 60.29/17.63 |
| 25-34 | | 0 | | | |
| 35-44 | | 21 | 76.05/17.87 | 66.33/16.95 | 70.81/13.82 |
| 45-54 | | 0 | | | |
| 55-64 | | 8 | 81.63/18.13 | 74.75/17.50 | 76.13/ 8.86 |
| 65-74 | | 1 | 70.00/ 0 | 67.00/ 0 | 88.00/ 0 |
| 75-84 | | 0 | | | |
| 85-94 | | 0 | | | |
| 15-24 | General Population | 26 | 83.62/10.29 | 73.15/14.40 | 77.19/11.02 |
| 25-34 | | 23 | 80.00/14.81 | 72.30/12.24 | 72.61/13.41 |
| 35-44 | | 7 | 82.14/10.38 | 70.86/18.85 | 75.00/12.32 |
| 45-54 | | 3 | 81.00/ 5.29 | 83.00/14.73 | 72.00/22.65 |
| 55-64 | | 1 | 76.00/ 0 | 71.00/ 0 | 81.00/ 0 |
| 65-74 | | 0 | | | |
| 75-84 | | 0 | | | |
| 85-94 | | 0 | | | |
| 15-24 | Retirees | 0 | | | |
| 25-34 | | 0 | | | |
| 35-44 | | 0 | | | |
| 45-54 | | 0 | | | |
| 55-64 | | 1 | 94.00/ 0 | 65.00/ 0 | 88.00/ 0 |
| 65-74 | | 32 | 93.72/ 8.52 | 87.00/14.12 | 88.69/9.67 |
| 75-84 | | 62 | 92.52/10.38 | 87.60/13.76 | 87.05/13.59 |
| 85-94 | | 34 | 88.65/13.48 | 86.03/12.79 | 86.47/13.33 |

*Note.* Numbers that precede slash marks are means and numbers that succeed slash marks are standard deviations. The number of zeros for age groups was expected due to the mutually exclusive nature of the subpopulations. *Mensa = Society for the Intellectually Elite.

## Discussion

Age is the most prevalent variable normed in the tradition of psychometrics. The present study extends the findings of the companion paper by providing additional meaning to scores of respondents. Age provides a unique perspective on subjects' responses, one that is not only supplemental to, but different from, that gained by the evaluation of gender norms. Information is provided about the potential influence of age on how individuals perceive and experience leisure. Age also provides a convenient basis for comparison because it is a variable that is readily available.

WAID scores of distinct groups of subjects across the life span were visually inspected relative to a spectrum of variables. Generally, perceived freedom values were highest, women tended to score higher than men on the subscales of the WAID, the trend for the distinct groups across the life span for positive affect increased linearally with age, individuals with low levels of education appeared to score highest, single subjects' scores were higher, retirees' values were greatest, and income did not seem to be a discriminating factor.

The findings have implications for issues relevant to human development. Data suggest that there seems to be a "developmental sequence" to quality of life across the life span, at least based on distinct groups, as represented by comparative values of positive affect. Regardless of gender, progress seems to be upward and significant, although the correlation between age and positive affect is relatively modest. In other words, older people tend to exhibit somewhat more positive affect. These findings tend to refute one of the "myths" noted by Zarit (1977) that aging is an inherently negative process characterized as a "downward spiral."

The present study suggests priorities for future research. The expanded normative data base called for in the companion paper (Hultsman & Black, 1989) might be accomplished in two ways. First, additional data might be collected pertinent to the independent variables reported in the tables and additional variables of importance (e.g., ethnicity) might be used. Second, a coordinated national effort might be organized and implemented to establish appropriate "standards" such as selection of and agreement on the demographic variables collected, the appropriate scales for their measurement, and a decision about which groups to include in normative development. Concurrently, an exigent focus of research is the further evaluation of psychometric properties for the WAID. For example, a priority is confirmation of reliability estimates (Hultsman & Russell, 1988) and the establishment of validity.

In summary, the ultimate goal of presenting baseline norms for the WAID is to promulgate the experiential nature of leisure. Toward this end, normative development facilitates the investigations of leisure experiences and the significance of thoughts and perceptions of individuals about leisure. Also, the development of norms may increase the use of the WAID both as a research instrument with specific subpopulations and as a counseling tool for individual applications. Finally, norm development provides meaning to scores of the WAID by offering a context for comparisons with tabled results of group and individual values.

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# Older Adults with Developmental Disabilities/Mental Retardation: A Research Agenda For An Emerging Sub-Population

Ann M. Rancourt, Ph.D.

Though leisure researchers have studied the general population of older adults, few have studied older adults with developmental disabilities/mental retardation (DD/MR). The recreation and leisure literature has typically focused on younger populations with DD/MR. An overview of the gerontological, recreation, and leisure literature provides a guide to potential areas for investigation that may contribute to the body of knowledge and improved professional practice.

Society's concern specifically for the needs of adults with DD/MR is less than thirty years old. Janicki and Wisniewski (1985) indicated that the concern arose from the aging of the general population coupled with improved quality of care for those with DD/MR. Life expectancies for the population at large and for those with mental retardation have increased significantly; thus, those who are both older and DD/MR represent an increasingly larger subgroup of the general elderly population (Janicki & MacEachron, 1984; Lubin & Kiely, 1985).

Older adults with pre-existing mental and physical disabilities are an important clientele for therapeutic recreation specialists (TRS) (Jacobson, Sutton, & Janicki, 1985). However, little is known about how aging affects individuals with DD/MR. The aging process in this group is less well documented than in the general population (Delehanty, 1985; Wisniewski & Merz, 1985). Researchers, policymakers, and planners are only beginning to focus on older persons with disabilities (Cantapana, Levy, & Levy, 1985).

This article is a result of an integrative review of the gerontology, recreation, and leisure literature. Specifically, potential leisure research questions emerged from the review. Topical categories include the following: (a) comparative research about older adults with DD/MR, (b) research on activities, (c) research about leisure education and counseling, (d) research on social skill interaction and development, (e) research about the leisure role for this population, (f) research on the relationship between recreation and leisure and quality of life, (g) research regarding community integration, (h) research on the impact of choice and decision making, (i) research about behavioral development in older adulthood, (j) research on personnel preparation and continuing education, and (k) research methods for studying this population. These topical areas represent an ambitious outline for a program of leisure research about older adults with DD/MR.

## Areas in Need of Future Research

Several authors (Jacobson et al., 1985; Janicki & Wisniewski, 1985; Seltzer, 1985) have suggested an absence of significant, systematic social research in the area of aging and DD/MR. They call for exploratory and experimental research to serve as a baseline and to provide a framework for future research and service delivery.

Some researchers (e.g., Janicki, Knox, & Jacobson, 1985; Seltzer, G.B., 1985) suggest that future research should address: (a) demographic and epidemiological questions about older adults with DD/MR; (b) longitudinal studies on longevity, successful aging, and mortality for those who are institutionalized, were institutionalized and released, and those who were never institutionalized; (c) service availability and accessibility; (d) clinical strategies that develop client skills and enhance quality of life; (e) evaluation of age-generic and age-specific programs and program efficacy; and (f) assessment of formal, informal, social, and economic support systems for older persons with DD/MR. Certainly leisure researchers could make a significant contribution to this body of knowledge. This, in

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turn, could be applied by TRSs to professional practice.

### *Comparative Research About Older Adults with Developmental Disabilities*

Seltzer (1985) discussed the need to identify similarities and differences between older persons with DD/MR and two comparison groups; younger adults with DD/MR and older persons without DD/MR. Studying younger adults with DD/MR could provide therapeutic recreation and leisure professionals with useful information for planning and determining the extent of need for age-generic versus age-specific programs. Investigations of older adults with DD/MR are necessary to determine the similarities and differences between older persons with and without DD/MR. Similarities might enhance advocacy for integrated recreation programming, whereas significant differences might lend support for specialized programs as an initial step toward integration. Such studies should provide a factual basis for programmatic decision-making regarding intergenerational and integrated programming.

Findings from two studies comparing younger and older persons with DD/MR (Krauss & Seltzer, 1987; Seltzer, Seltzer, & Sherwood, 1982) indicated that deinstitutionalized older persons lived in more restrictive environments, performed fewer skills, and received fewer support services than younger persons. Descriptive studies and field experiments are needed on how enriched environments affect the functioning of older persons and what specific impact therapeutic recreation and leisure services would have on older persons.

Three studies have focused on comparing older persons with and without DD/MR (Cotten, Sison, & Starr, 1981; Janicki & MacEachron, 1984; Sherwood & Morris, 1983). Summarized findings showed that there were more male members among older adults with DD/MR; this contrasts with the predominantly female composition of the general older adult population (those without DD/MR). Secondly, only a small proportion of older adults with DD/MR live in family settings; most older adults without DD/MR typically reside in such settings. Finally, 50-60% of older adults with DD/MR are in institutions while only 5% of those older adults without DD/MR are institutionalized.

Future research could focus on how these findings impact on quality of life and activity participation for those older adults with DD/MR compared to those older adults without DD/MR. For example, how does a higher male population with DD/MR affect activity offerings and recreation participation? How do family environments compare with institutional environments in terms of the types of activities participated in, meaningfulness of relationships, and other elements of quality of life?

### *Research on Activities*

Another area receiving much attention by professionals in the field of developmental disabilities is that of activities and the role they play in the lives of older persons with DD/MR. Seltzer, M.M. (1985), in particular, raised some interesting questions for leisure researchers. What types of and how many activities are participated in by older persons with DD/MR? What is the relationship between life satisfaction and activity participation/non-participation? What are the environmental opportunities relative to given activities? How does individual competence relate to activity choice and participation? Is there an optimum level of activity involvement for an older person with DD/MR? What is the relationship between level and type of activity and health and quality of life? How do memory deficits or cognitive dysfunction translate into choices people make about the activities in which they participate?

To summarize, this brief overview of emergent questions for this population shows some of the possibilities for future research. Many questions and issues have been raised that have potential for leisure researchers. There is much that can be explored and examined as there has been little research on older adults with DD/MR conducted in the recreation and leisure field to date. Depending on the nature of the particular research question, there is the need for descriptive studies, field experiments, and longitudinal research.

### *Recreation/Leisure Research: Extending and Replicating*

MacNeil (1988) indicated that the leisure service phenomenon as experienced by older adults is an emerging scientific field of study. Although leisure research efforts have been extended to include the general population of older adults, there is a paucity of research in the leisure literature on the older adult with DD/MR. Burch, Reiss, and Bailey (1985) stated that leisure research on the DD/MR population has focused on higher functioning, younger people rather than on the older population.

During the 1970s and 1980s, many researchers explored the relationship between leisure and life satisfaction of older adults (Agostino, Gash, & Martinsen, 1981; Baack, 1985; Mancini & Orthner, 1980; Ragheb & Griffith, 1982; Riddick & Daniel, 1984; Romsa, Bondy, & Blenman, 1985; Russell, 1987; Sneegas, 1985; Terburgh & Teaff, 1986). However, except for research by Rinck (1986) the focus has not been specifically on older adults with DD/MR. Examining these studies and replicating them with the older adult DD/MR population could provide valuable information for leisure researchers and service providers.

### *Research About Leisure Education and Counseling*

Backman and Mannell (1986); Witt, Ellis, and Niles (1984); Meyers (1984); and Loesch and Burt (1980) have studied the value of leisure education and counseling as they relate to leisure behavior, leisure satisfaction, activity involvement, and social interaction of older adults and persons with disabilities. Backman's and Mannell's (1986) research provided an interesting question as to whether it is enough to simply teach older adults with DD/MR new skills and provide programs. A greater need may be to determine their awareness of and attitudes about leisure, and to learn how these impact on satisfaction with and the quality of various experiences. Research might also determine what factors and conditions contribute to a rise in levels of activity. Anderson and Allen (1982) provided early information to persons interested in the leisure experiences of older adults with DD/MR. Because many older adults with DD/MR may not have had the opportunity to experience leisure and develop recreation skills, leisure education and counseling is an aspect of intervention and service that is necessary and in need of research.

### *Social Skill Interaction and Development*

Though recreation participation provides the opportunity for social skill development and interaction, generalization beyond the experience has not typically occurred (Anderson & Allen, 1985; Anderson, Grossman, & Finch, 1983; Crawford, 1986). Anderson and Allen (1985) called for research investigating methods that increase social interaction and activity involvement for those with DD/MR. According to Pollingue and Cobb (1986), most adults with DD/MR cannot enjoy recreation activities independently because the emphasis on skill training stops short of skill transferability and generalization. Generalization, carry-over, and transfer are important components of full activity participation and ultimately, independent functioning in the least restrictive environment.

Dattilo (1987) provided a synthesis of literature pertaining to recreation for individuals with DD/MR. Though he did not focus on the older adult with DD/MR, his suggestions are useful as a stepping stone for conducting research with the older population. Among his recommendations are that appropriate leisure lifestyles are important for persons with DD/MR. He stated that research is needed on: enhancing leisure lifestyles for those with severe and profound retardation; fitness and well being for those with DD/MR; and developing social skills and recreation skills that facilitate integration. He also emphasized the importance of using applied behavioral analysis procedures to facilitate replication (such as single subject experimental designs).

### *Research on the Leisure Role*

Fundamental to leisure research as it applies to older adults with DD/MR is Wolfensberger's (1983, 1985) social role valorization theory which he conceptualized to replace the normalization principle (Wolfensberger, 1972). The primary goal of social role valorization is the "establishment and protection of positively valued social roles for people who are devalued by society or at risk of devaluation" (Wolfensberger, 1985, p. 61).

An interesting point of inquiry relates to age, disability, and leisure. In the United States, none of these roles is seemingly perceived as valued. What are the implications for older people with DD/MR who seek out recreation participation as a primary means of interacting in society? Howe's (1987a, 1987b) discussion has implications for the researcher studying leisure roles as valid and meaningful, especially as they apply to this population and social role valorization theory.

In her literature review, Howe (1987a) compared the activity, disengagement, and continuity theories of aging and found continuity theory to be the most fruitful conceptual framework for guiding leisure research about older adults. The degree of success with which older persons assume the leisure role is influenced by both personal and external variables. It remains incumbent on society to place value on older persons (and others) who do not contribute to society via gainful employment. Howe (1987b) argued that qualitative research approaches, specifically the use of participant observation and interviews, are appropriate techniques for

understanding the role and meaning of leisure in the lives of older persons vis-a-vis societal influences and contexts. She concluded that much work remains to be done.

### *Research on Recreation and Leisure and Quality of Life*

Are recreation and leisure experiences central to the quality of life of older adults with DD/MR? Professionals interested in enhancing quality of life have been concerned with variables such as perception, control, responsibility, patterns of behavior, competence, and supportive relationships. Researchers (Davis, 1982; Iso-Ahola, 1980; Longino & Kant, 1982) have provided information useful to designing theoretical frameworks and more effective services. Key to examining the relationship between activity involvement and quality of life for older persons with DD/MR are social-psychological factors and role continuity.

A fundamental purpose of recreation and leisure services is to enhance quality of life. Research questions remain to be answered in this area. Researchers might explore how older adults with DD/MR manage age and disability-related stressors and whether recreation involvement impacts on stressors. Epistemological research, particularly the use of qualitative structured interviews (Howe, 1987b), might provide data on perceived quality of life for older persons with and without DD/MR. Through observation and interviews, researchers might discern which recreational activities and leisure experiences are *meaningful* and provide opportunities for optimal engagement for older persons with DD/MR. Researchers might also determine how recreation programs promote skill retention and competence, and how these factors contribute to the quality of life. Researchers interested in studying the subjective well being of older adults are encouraged to review Larson's (1978) work on conceptual models and research designs. At the time of Larson's work, the social-gerontological literature was primarily descriptive or cross-sectional. He encouraged the use of longitudinal and experimental designs. Also, satisfaction with leisure was rarely investigated as a primary component of subjective well being.

Seltzer, Seltzer, and Sherwood (1982) studied the community adjustment of older versus younger adults with DD/MR. Baker, Seltzer, and Seltzer (1977); Edgerton, Bollinger, and Herr (1984); and Wieck (1979) examined the quality of life for adults with DD/MR. However, Seltzer (1985) stated, "the relative dearth of descriptive accounts, theoretical papers and research investigations limits the understanding of the range of affective and behavioral processes experienced by the elderly developmentally disabled person" (p. 212). Again, the call for social science research is echoed.

Though few investigations of this population have been undertaken by leisure researchers, this overview suggests a myriad of possibilities do exist. Clearly, a social-psychological approach is in order that may either test existing or generate new theory. Within the social science perspective, qualitative research using observations and interviews is especially appropriate for older adults and persons with disabilities. Completed studies can be replicated and extended. The topics culled from the literature and identified herein are in need of future research. The proposed agenda has questions that can be prioritized and pursued through a variety of social science research techniques. Qualitative explorations of leisure meaning and roles within a social role valorization context appear promising to the body of knowledge; professional practice; and planning, social action, and policy-making.

### *Community Integration*

Crawford (1986) and Dattilo (1987) called for research to address the development of age-appropriate, community-based recreation skills that facilitate successful integration. Researchers might examine which recreation skills and social behaviors are needed to optimize integration. They could also determine when a lack of skills and behaviors deters integration. It would be valuable to learn how support systems impact on participation in community recreation programs. What is the role of home care providers in supporting interest and participation in activities in community programs? Newman, Sherman, and Frenkel (1985) found that the more involved care providers are in socialization and activities themselves, the better they are at facilitating residential involvement. These questions and findings provide a catalyst for understanding the benefits of "family-residence" leisure education programs and their impact on integration.

With greater deinstitutionalization, it may be that professionals will face many new challenges in the provision of recreation/leisure services. It may also be that service providers in transitional (group homes and day treatment) and community (senior centers) settings will be serving more older people with more severe disabilities. As people move from segregated to integrated environments, many questions arise. Researchers might examine what, if any, differences exist in recreation participation and

leisure satisfaction in segregated, segregated/integrated, and integrated environments for older adults with DD/MR. Researchers might be able to determine the most effective transitional aids for facilitating successful integration (acceptance of older adults with DD/MR by the general older adult population). It would be valuable to learn which recreational activities and leisure experiences *most enhance and contribute* to social integration, and what patterns of integration are most successful. Researchers might also be able to identify which and how stereotypical and negative attitudes contribute to the perpetuation of segregated programs and facilities, and to determine how these can be reduced/eliminated.

Researchers might also be able to determine if and which social skills facilitate integration, and whether these skills can be enhanced through participation in recreation programs. While Wehman (1979) suggested they can, Dattilo (1987) stated that there is little research to support this strategy. Marchetti and Matson (1981) indicated research on social skill development has lacked methodological control.

### *Choice and Decision-Making*

Choice has been a consistent descriptor of leisure and several writers (Dattilo & Barnett, 1985; Dattilo & Rusch, 1985; Guess, Benson, & Siegel-Causey, 1985) declared the need to provide participants with opportunities for expression of choice. Being able to make time and activity choices is a higher level cognitive function. Research examining cognition and, specifically, comprehension might provide insight into the meaning of recreation/leisure choices for older adults with DD/MR. Also of interest to researchers would be to study how behavioral development is affected when older adults with DD/MR are empowered to make recreation and leisure choices.

### *Behavioral Development in Older Adulthood*

Recreation and leisure participation involves functional behaviors in the cognitive, affective, psychomotor, and social domains. Researchers using cross-sectional and longitudinal studies might determine how these behaviors develop along the life course of persons with DD/MR. Comparative studies with the non-DD/MR population might provide insight into learning, transfer, and generalization across learning domains and settings, recreation participation, and leisure satisfaction. It would also be beneficial to learn the extent behavioral limitations are explained solely by intellectual limitations compared to lack of support or environmental intervention.

### *Personnel Preparation/Continuing Education*

Successful participation and integration of older persons with DD/MR in recreation/leisure programs rest on the knowledge, skills, and attitudes of professionals providing services. Researchers might be able to identify which leadership styles and teaching/learning strategies are most effective in improving functioning and in facilitating integration for older adults with DD/MR.

Researchers could examine staff competencies regarding learning theories, teaching methodologies, counseling techniques, knowledge of human development, characteristics specific to disabilities, and successful integration strategies. Optimal staff to participant ratios need to be defined in terms of developing behaviors that will *optimize* participation and integration.

Many nonprofessional, direct care staff members are responsible for providing recreation services, especially for those older adults with severe and profound retardation. Researchers might examine staff knowledge, skills, and attitudes regarding the population, recreation, and leisure. Because volunteers and senior companions play a key role in integrating older adults with DD/MR into community programs, it would be valuable to learn which strategies are most effective in preparing volunteers for their roles.

### *Research Methods with Older Adults with DD/MR*

Finally, many questions need to be addressed as to the best and the most effective means of gathering data about this population. Researchers need to ask what are the most reliable and valid assessment and evaluation instruments for older adults with DD/MR across the behavioral domains and in light of the characteristics of the population. Two obstacles that may affect research with aging persons with DD/MR are the potential inability of the person to self-report valid and reliable information, and the degree of precision needed in collecting data.

Suggestions for addressing these concerns include improving observational strategies, developing different data collection strategies (Seltzer, 1983), improving interview techniques (Sigelman, Schoenrock, Budd, Winer, Spanhel, Martin, Hromas, & Bensberg, 1983), and lengthening the assessments

(Seltzer, 1985). Many writers (Bock & Joiner, 1982; Patterson, Eberly, & Harrell, 1983; Schnelle & Traughber, 1983) have addressed the applicability of behavior assessment or rating scales to the evaluation of both the geriatric population and persons with DD/MR. The use of interview and observation schedules is appropriate for both individual and small group inquiries. Multiple methods can be used to cross-check and verify data. Multiple data sources also serve to enhance validity and reliability.

Longitudinal and cross-sectional approaches are fruitful in understanding the role and function of recreation and leisure in the lives of older adults with DD/MR. However, if the researcher is attempting to make inferences about the effects of aging, neither design alone may be adequate. To determine what life experiences most positively impact on successful aging for this population and what role recreation and leisure experiences play in older adult development, researchers might find useful the general developmental model discussed by Seltzer (1985) and proposed by Schaie (1965) and Baltes (1968).

The general developmental model holds that a response to a question is a function of age, cohort and the time during which measurement occurs (Schaie, 1965). Schaie (1965) and Baltes (1968) determined that by using at least two age cohorts, each assessed longitudinally for at least two sets of measures, effects of age and cohort could be separated. Researchers using this methodology should gain contextually rich information about older persons with DD/MR.

## Conclusion

In conclusion, the study of recreation and leisure as they relate to older adults with DD/MR is rich in possibilities. There is a dearth of information on recreation and leisure for older adults with DD/MR. The existing literature has focused on younger persons with DD/MR or older persons without DD/MR, and only recently has begun to specifically address leisure.

From a review of the literature in developmental disabilities, recreation, and leisure, a strong case has been made for the necessity of such research and several research topics, areas, and questions have been posed. Researchers have the opportunity to make a significant contribution to the recreation and leisure body of knowledge and professional practice by addressing the questions and issues posed. By assessing and utilizing methodological traditions of the recreation, leisure, and gerontological fields, researchers might generate data and interpretations helpful to those responsible for advocating, planning, and providing services to this population.

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# An Emerging Challenge: Serving Older Adults with Mental Retardation

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In this century the body of knowledge concerning mental retardation and ways to enhance the quality of life for citizens who are mentally retarded has vastly expanded. The level of knowledge, however, is not of equal depth across the life span of this population. The amount of research that has focused on the younger portion of this group is considerably larger in volume than the work directed to the older segment of this population.

Several factors targeted the inquiry to the youthful end of the spectrum. With shorter life spans, individuals with mental retardation were younger than the general population. Those who reached old age were likely to reach institutional care, away from public consciousness. Early advocacy groups consisted primarily of parents. Their efforts successfully focused attention on that portion of the population in their care. And, lastly, research and programs cost money and gravitate to areas that have funding. During the Kennedy administration, federal and private monies became available for research in education and for programs stimulating athletic participation. Thus, beginning in the sixties, activity increased in both of those areas and the primary beneficiaries were the young.

In the last 20 years, improved care has caused mortality rates among the mentally retarded population to drop. As the older American population has grown, so too have estimates of the aging mentally retarded population. The exact size of this population has yet to be determined. Estimates vary widely, from 196,000 to 1,400,000, and reflect the different age ranges and methodologies selected by the assessors (Seltzer & Seltzer, 1985; Waltz, Harper, & Wilson, 1986). Demographers agree, however, that this is a rapidly growing segment of the American population. As the baby boomer generation inflates the aging population (Sison & Cotten, 1989), the number of persons with mental retardation over 55 years old is predicted to increase 39% by the year 2000, and 87% by 2020 (Jacobson, Sutton, & Janicki, 1985).

Deinstitutionalization is further increasing the awareness of this growing segment of the population as appropriate community placements are sought for elderly citizens with mental retardation (Bruininks, Hill, & Thorsheim, 1982). This broadened scope of concern is reflected in the name change and policy revision of the National Association for Retarded Children. In the early seventies, this organization embraced the goal "To improve the general welfare of the mentally retarded of all ages everywhere" (Segal, 1977, p. 25), and substituted the word *citizens* for *children* in its title.

The traditional, somewhat myopic view of mental retardation is refocusing to encompass the entire lifespan of the individual. As the profession of therapeutic recreation prepares itself to serve older citizens with mental retardation as fully as it serves its younger counterparts, there is knowledge to be uncovered, problems to be addressed, and services to be developed.

## Need for Services

Several recent investigations have attempted to identify the needs of older adults with mental retardation. Among the most prevalent indicators were: (a) barrier-free housing, (b) health care services, (c) appropriate nutritional assistance, (d) recreational activities, (e) skill development and maintenance, (f) socialization opportunities, and (g) counseling and life planning (Janicki, Otis, Puccio, Rettig, & Jacobson, 1985).

In Massachusetts, adaptive behavior profiles were developed for elderly disabled persons using a modified version of the Minnesota Developmental Programming System Behavior Scales (Jacobson et al., 1985). According to this measure, residents of health care facilities and state schools demonstrated less competence than residents of group homes and natural homes. Deficits were more pronounced in the areas of cognitive skills and independent living skills. The study also revealed low competence in

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recreation activities, regardless of residential setting. Janicki and MacEachron (1984) investigated the provision of, the use of, and the needs for services in the following areas:

1. *Day Activity Programs* - As individuals grew older, they were more likely to be without programs. Therapeutic congregate care activities were most commonly used, followed by sheltered workshop activities.

2. *Health and Therapy Services* - The most needed services were those related to hearing; loss of fine motor dexterity and gross motor movement; interpersonal and stimulation activities; and services provided by physical, occupational, and recreation therapists.

3. *Generic Services* - As age increased, fewer services were provided. The most needed services were training for transportation use and leisure-time activities.

Both studies pointed to the need for recreation services that will not only replace time spent at work, but will provide meaningful experiences for these individuals. It is no longer possible to ignore the crucial role leisure plays in enhancing the quality of life of persons with disabilities, especially of those who are not active members of the work force. As Ross states, the "emphasis on participation and self expression, rather than competition and productivity" (Ross, 1983, p. 18) facilitates the acquisition of knowledge, skills, and abilities needed for coping with and enjoying life. Recreation can be used as a means to meeting needs such as socialization, cognitive and sensory stimulation, physical fitness, nutritional information and daily living skills.

## Service Utilization

As Seltzer, Seltzer, and Sherwood (1982) suggested, often those in most need of services are expected to gain the least. Consequently, it is not unusual to find individuals in great need who are not being provided adequate services.

Several studies have concentrated on patterns of service utilization by elderly persons with mental retardation. Seltzer (1988) divided services into three sectors: (a) age-integrated mental retardation sector, initially developed for younger individuals but also serving the elderly population; (b) age-specialized services for persons with mental retardation, primarily directed at older adults with mental retardation clients; and (c) generic aging service sector, designed for the general elderly but also utilized by the mentally retarded. The strengths and weaknesses of each sector were indicated by professionals consulted by Seltzer (1988). A summary of their opinions is shown in Table 1.

Table 1
*Comparisons of service sectors according to service providers*

| Sectors | Strengths | Weaknesses |
|---|---|---|
| Age integrated | Active treatment programs encouraging clients to continue to work. | Activities provided may not be age-appropriate-difficulty, pressure, lack of flexibility, etc. |
| | Higher quality of social experience-varied peer group. Age integration is normalizing. | Lack of age-appropriate peer group. |
| Generic aging | Age-appropriateness of services offered. | Lack of expertise on the part of staff in dealing with mentally retarded. |
| | Flexible and well-integrated within the community | Staff may not be receptive to integration. |
| | Normalizing, beneficial relationships with age peers. | Services not programmatically appropriate appropriate for mentally retarded. |

Table 1 Continued
*Comparisons of service sectors according to service providers*

| Sectors | Strengths | Weaknesses |
|---|---|---|
| Age specialized | Specialized both on aging and MR. Flexible individualized. Retirement option. | Potential to isolate, stigmatize, and segregate. |
| | | Clients may be separated from past friends and placements. |
| | Expertise of staff. | Programmatically may offer less challenging experiences and have lower expectations. |
| | Peer relationships to those equal in age. | |

Age-integrated services comprised the higher proportion of support services. Services such as therapy, recreation, transportation, and financial and legal assistance were commonly delivered through this service sector. The age-specialized services offered a high proportion of day programs. Generic aging services were mainly residential, more than half consisting of nursing homes. The investigators reported that almost two-thirds of all programs and services utilized were age integrated. About one-third were generic aging services and less than 5% were age specialized.

In the future, the number of elderly mentally retarded persons served by generic aging services is expected to grow as a consequence of the trend toward community integration (Seltzer & Krauss, 1987). Due to the 1985 amendments to the Older Americans Act of 1965, services originally guaranteed to older individuals were expanded to address the older mentally retarded population (Stroud & Sutton, 1988).

A well known example of the type of services funded through the Older Americans Act is the senior center (Seltzer & Krauss, 1987). Senior centers will be increasingly called upon to serve older persons who are mentally retarded as efforts are made to integrate these individuals into the mainstream of society. Recreation professionals who are knowledgeable about the characteristics of this special population will be in demand to fulfill this new mission.

Another type of generic service that is becoming more popular in the U.S. is adult day care, usually provided as a respite service to family members acting a caregivers. Older adults with mental retardation who are retiring from work related programs are beginning to take advantage of this service (Stroud & Sutton, 1988). This type of structured program calls for the leadership of trained staff and volunteers in various areas, including recreation.

## Provision of Services

### *Support Systems*

Krauss and Erickson (1988) investigated the support networks of aging mentally retarded persons in institutions, community residences, and family settings. The study showed that, for those individuals living with family, family members themselves played the most important role in providing support. The disturbing aspect of this finding is the lack of support that may result from the death of a family member. Those living in community and institutional settings were more likely to receive emotional and personal support, as well as companionship, from their friends. This critical role of friendship must be considered when new placements are decided. The high incidence of subjects found to spend time alone in institutional settings is somewhat alarming considering the relationship between social affiliation in old age, onset of depression, and disengagement from society.

Seltzer, Finaly, and Howell (1988) explored the formal and informal supports received by the elderly mentally retarded residing in nursing homes and in community settings. Results showed that nursing home residents were more likely to be served by clergy, medical personnel, and social workers. On the other hand, those living in the community received vocational services, community skills training, and dental services more often. Nursing

home residents had less contact with family and participated in fewer social and recreation activities.

### *Programmatic Issues*

The first step in programming for older adults with mental retardation, as with other clients, is the development of goals and objectives. However, setting goals for this special group entails more than combining the goals already developed for the elderly with goals formulated for individuals with mental retardation. The task is more complex because it involves the determination of priority areas, as well as a clear understanding of how needs interact or vary among the population being served.

One necessary goal is to help the elderly person find new activities that are enjoyable and within his/her range of ability. Some recreational activities learned in the past may no longer fit the client's physical condition and motivational level. Although it has been found that some mentally retarded individuals, particularly those with Down's Syndrome, experience decrements caused by the aging process earlier than the normal population, it has not been demonstrated that this aging pattern is common among all persons with mental retardation (Jacobson et al., 1985). The great majority of older mentally retarded population is classified as mildly or moderately retarded (DiGiovanni, 1978). Having survived to old age, these individuals have proved to be rather physically, intellectually and adaptively viable, thus demonstrating the capacity of benefiting from the same realm of opportunities available to other aging persons. It is important to attempt to achieve a balance between acknowledging functional deficits and providing sufficient novelty and challenge to assure continuous involvement and interest.

A study conducted by Benz, Halpern, and Close (1986) showed a disconcerting trend regarding participation in leisure. Nursing home residents' participation in outside day programs was significantly less than that of residents of community or public residential facilities. The study found that a great percentage of residents did not participate in leisure activity, either inside or outside the nursing home. Residents involved in activities were typically younger, more mobile males. Similar findings of limited leisure involvement were reported by Seltzer et al. (1988). Several studies have found that the activities most often engaged in by older persons with mental retardation are watching television and listening to the radio, which reflect a very passive leisure lifestyle. Shopping in local stores or eating out are among the most popular community activities reported (Anderson, Lakin, Bruininks, & Hill, 1987; Benz et al., 1986; Stroud & Sutton, 1988). In general, community outings involve situations in which the individuals stay together as a group and have few opportunities to meet non-disabled persons.

Considering the significance of participation in recreation for those not competitively employed, the limited patterns of usage uncovered by these studies are a concern for recreation professionals. Leisure education programs are needed to assist clients not only to increase their leisure involvement, but to diversify its content. For many clients this may be the first opportunity to learn fundamental skills such as making plans for the weekend. Therapeutic recreators should avoid the assumption that an apparent lack of interest is a consequence of low intellectual level or frail health. The fact that many clients appear to be passive and unmotivated can be attributed to a lack of skills and to a history of dependency upon others for activity provision. Instead of putting the blame on the client, a conscientious professional needs to rethink his or her strategies and try another way of reaching the client.

Leisure education is usually a prerequisite for independent recreation participation. It is a mistake, though, to believe that a once-in-a-lifetime program will be sufficient to erase years of helplessness. As Ross (1983) suggests, preparation and training for leisure should be approached as a step-by-step process. In Ross' model, training begins with basic issues such as the awareness of what leisure is. It proceeds to explore skills related to budgeting time and seeking information on personal and community resources. Before setting goals for skill development and developing leisure plans, leisure interests and experiences are reviewed. As any flexible system, this training program utilizes ongoing evaluation and revision of objectives according to assessed progress.

A similar gradual process is needed when participation in community-based recreational programs is intended. Recently, the topic of community integration regarding older adults with developmental disabilities has received increased attention in the literature due to a growing belief that individuals with mental retardation can benefit from services already available to the aging segment of the population (Rancourt, 1989; Stroud & Sutton, 1988; Sutton & Roberts, 1989). Kunstler (1986) presents three factors as vital to total community integration through recreation: "(a) the acquisition of chronologically age appropriate skills, (b) the

individual's ability to generalize activities, and (c) the individual's ability to choose and initiate activities" (p. 16).

An important concern of recreation specialists should be to help the individual with mental retardation function according to social expectations for his/her age-group. The emphasis needs to be placed on lifelong skills instead of on activities inappropriate for one's chronological age. The elderly client needs activity skills that contribute to his/her dignity when integrated into normal settings.

As much as possible, skill training should take place in the environment where the skill is to be used. Programs should make provisions for the generalization of skills to a variety of settings so that future independent participation is ensured.

Clients may need to be trained to voice preferences and make decisions regarding issues that appear rather simple to most people. Having spent years of their lives in protective and highly structured environments, many of the older individuals with mental retardation did not have many opportunities to exercise choice and control. Many will require constant reminders concerning choices available to them. Even when working toward meeting therapy demands, such as those associated with active treatment, the therapeutic recreator should not overlook the importance of maintaining control as a source of self-actualization.

### *Delivery Problems*

Over a decade ago, participants of a conference on the Gerontological Aspects of Mental Retardation pointed to factors that impeded the provision of services to older adults with mental retardation (Segal, 1977). They included:

1. Insufficient number of professionals and paraprofessionals to work with this group.
2. Negative attitudes on the part of community people.
3. Lack of public awareness concerning problems faced by the elderly retarded.
4. Limited funding to develop programs.
5. Location of services (not always accessible to less independent persons).
6. Generic services not seeing elderly persons with mental retardation as possible clients.
7. Poor coordination of resources among different agencies.

Some of these problems are still present today. Several studies referred to previously (Benz et al., 1986; Seltzer et al., 1988) detected a lack of preparation by personnel caring for the elderly client with mental retardation. Even well-meaning staff, if not knowledgeable concerning weaknesses and strengths of a particular group of clients, may constitute blocks to the clients full participation in recreation programs. In the community the support of elderly members is not always readily available. As Ossofsky (1988) insightfully suggests, individuals who face increased frailty may resent those whose lifelong disabilities remind them of a feared but possible destiny.

When discussing the issues related to aging and developmental disabilities during the Wingspread Conference of 1987, participants were called to develop a partnership for the 21st century (Ossofsky, 1988). This partnership between aging and lifelong disability represents a step forward in the elimination of problems such as competition for funds, overlapping of services, and shortage of professionals trained to work with persons who are both old and developmentally disabled.

### *Integration Efforts*

Significant differences that exist between the aging and the developmentally disabled population must be considered when integration is being planned. Many of these differences relate to the lifelong nature of developmental disabilities. While older adults may become disabled later in life, those with developmental disabilities require a changing array of services throughout their lives. Individuals with developmental disabilities have fewer residual skills to fall back on when further impairment takes place (Gettings, 1988). However, many common concerns bond the two population groups. Among them, perhaps the most important, are the needs for support services that enable them to remain independent, to enjoy the same benefits available to other segments of the population, to preserve their sense of self-worth, and to be viewed positively by other members of society.

Recent efforts have been made to integrate older individuals with developmental disabilities into programs for senior citizens. At both state and national levels, partnerships between developmental disabilities agencies and agencies on aging are emerging. Some promising initiatives are mentioned by Rose (1987):

1. The Akron Community Access Program trains senior citizens to work as companions of aged developmentally disabled persons in senior centers or community activities.
2. In Missouri, Florida, and Arkansas, case management companion programs for the developmentally disabled elderly have been established.

3. National demonstration projects have been funded by the Administrations on Aging and Developmental Disabilities.
4. Both the Gerontological Society of America and the American Association on Mental Retardation have created sections concerning development disabilities and aging.
5. A national aging and development disabilities information exchange was formed to offer information on model projects and on bibliographies.

Cotten and Spirrison (1988) call our attention to the importance of establishing collaborative endeavors between service providers, particularly in community settings in which resources are more scarce, such as in rural areas. These authors suggest cross training of service providers in the system in which they do not regularly work. Thus, providers for the mental retardation system should be expected to attend conferences and join organizations dealing with aging while professionals in the aging system should seek avenues to become more knowledgeable about mental retardation. In 1987, two actions of Congress recognized this need for integration. They were:

1. *Public Law 100-146* which added a number of provisions to the Developmental Disabilities Act. Two of these provisions require state planning councils for developmental disabilities to appoint state aging agency administrators to their boards and to consider aging related issues (Janicki, 1988). Another "enables university affiliated programs to provide training and education in areas of gerontology and/or geriatrics and disability" (Janicki, 1988, p. 178).
2. *Public Law 100-175* which added provisions for individuals with disabilities to the Older Americans Act. These measures recognize that "older persons with disabilities have special needs that require collaboration...between the aging network and disability agencies at the federal, state and local levels" (Janicki, 1988, p. 178).

## Resources

In the past five years, a significant increase in the number of organizations and publications related to aging and development disabilities has been noticed. Some of the most significant literary contributions to this field are presented in a brief annotated bibliography in the end of this article.

Many service providers are not yet aware of the resources currently available. Often, all it takes to engage the national network is a telephone call or subscription to a newsletter. Valuable connections can be established, opening new doors and expanding the network.

In order to coordinate research and training efforts for the community integration of older persons with developmental disabilities, seven universities in six states joined to form a Rehabilitation Research Training Center Consortium on Aging and Developmental Disabilities. Among other services, the Consortium offers a clearinghouse that provides information and referrals on issues concerning aging and developmental disabilities. It also publishes a quarterly newsletter free of charge to which any interested person can subscribe. *A/DDVANTAGE*, a newsletter about aging and developmental disabilities, keeps readers updated on ongoing research and demonstration projects, current issues, new resources, and upcoming conferences.

Another group formed to approach the specific interests of those working with aging and mental retardation is the Special Interest Group on Aging/Mental Retardation, recognized by the Gerontological Society in 1988 as an "informal interest group". Its goals are to further communication among those interested in aging and mental retardation, to encourage exchange of information on research and programmatic issues, and to seek alternatives for better service provision.

The Aging/MR Special Interest Group publishes a separate newsletter called *AGING/MR* IG. Those affiliated with either the aging section of the American Association on Mental Retardation or the developmental disabilities section of Gerontological Society of America can obtain the newsletter at no cost. Otherwise, a $7 fee applies.

As a result of the Developmental Disabilities Act Amendment of 1987, which authorized the Administration on Developmental Disabilities to award grants to university affiliated programs in support of training projects in the area of aging and developmental disabilities, seven training projects were initiated. By consulting the list in the Appendix of this article, the reader can identify university centers whose location or focus of training are most appropriate.

Indiana University, one of the seven institutions to receive such a grant, developed a training inservice package on aging and developmental disabilities. The manual contains a wealth of interdisciplinary information presented in eighteen modules (Hawkins, Eklund, & Gaetani, 1989). This resource describes key concepts in each domain covered and also provides a bibliography relevant in the study of each subject unit. Also, the University of Missouri-Kansas City has developed special

publications on aging and developmental disabilities including training guides for practitioners (Kultgen, 1987; Kultgen, Rinck, Calkins, & Intagliata, 1986; Kultgen, Rinck, & Pfannenstiel, 1986). In Massachusetts, the Aging Project affiliated with the Shriver Center trains professionals and graduate students from a variety of health related professions to work with older adults with developmental disabilities in interdisciplinary teams (Howell, 1988). Field placements for graduate students are usually a year long but can be adjusted according to individual needs.

Once connected to the national network, information on new resources and opportunities become more readily available. The resources presented above comprise a reasonable introductory package for individuals interested in expanding their knowledge in this subject matter.

## Conclusion

There is still much to be investigated in the field of aging and mental retardation. Questions range from basic issues such as size of the population to more complex ones such as best network alternatives for service provision. Although there has been a great deal of progress in the study of the characteristics of older adults with developmental disabilities by allied disciplines, the therapeutic recreation field has yet to answer essential questions regarding the role of leisure in the lives of this special population. As retirement becomes a controversial issue, recreation professionals must be prepared to advocate the vital function recreation can play in the preservation of a person's identify and sense of worth. However, leisure may never replace the role of work in a person's life unless it is approached as a meaningful experience. How to best fulfill leisure's potential for self-actualization is an issue yet to be examined. Research needs to address fundamental questions such as:

1. Is the traditional definition of leisure as activity chosen for its own sake (Kelly, 1982) appropriate for older adults with mental retardation?
2. How much freedom in activity selection and participation can be exercised by clients? Can clients assert their recreation preferences?
3. Do preferences vary with degree of leisure awareness and information?
4. What are the major constraints to recreation participation for this group?
5. What strategies are most effective in motivating clients to engage in more active leisure pursuits?

In most programs, recreation is still provided as a diversional activity in which limited attempts are made to address the specific needs of the older person with developmental disabilities. Services are most likely to be offered within the mental retardation system where clients have few contacts with non disabled peers. The efforts to utilize generic services such as senior centers seem particularly exciting, opening up new avenues for community integration and normalization.

Again, new questions arise regarding the effectiveness of different grouping alternatives in obtaining therapeutic benefits or enhancing enjoyment during recreation participation. Are there times when small groups combining young and old individuals with mental retardation prove more effective than groups formed on the basis of age alone? To answer questions such as this, more studies will have to be designed to investigate similarities and differences between young and old persons with mental retardation, and between older adults with lifelong disabilities and their non-disabled peers.

When community integration is attempted, various program models must be compared to analyze benefits and to establish directions for future interventions. Residents of different settings will face diverse problems which need to be studied separately. Not only should the preparation of clients with mental retardation for entering community-based programs be investigated, but also the receptiveness of community personnel and of lay members. It is helpful to examine the means to educate the public and to enlist support.

Some of the questions raised before will be best answered by longitudinal studies. The eagerness to contrast and compare different cohorts may result in inaccurate assumptions. Inappropriate conclusions may also be drawn when researchers and practitioners fail to listen to their clientele. Individuals with mental retardation are no longer viewed as unable to speak for themselves; they can provide valuable input when adequate probing techniques are utilized.

Research must build on previous findings, seeking to expand and clarify them. Information must be disseminated beyond the academic institutions. Professionals need to become accustomed to joining experts for the purpose of producing interdisciplinary knowledge.

The recent attempts to integrate the aging and mental retardation/developmental disabilities network represent a step toward collaboration that can only enhance the quality of services rendered. Professionals working with the older mentally

retarded population in both systems can benefit from joining the existing networks providing information and referral in the area of aging and developmental disabilities. The exchange of ideas, research findings and resources can expand individual horizons and eventually build a more efficient and comprehensive network of services to older adults with mental retardation.

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# Annotated Bibliography

## *Books, Activity Guides and Professional Journals*

The professional interested in aging and developmental disabilities will find the following books valuable:

1. *Aging and Developmental Disabilities: Issues and Approaches*, by Matthew Janicki and Henry Wisniewski, published by Paul H. Brookes in 1985. Among other topics it covers demographics; biological, social and psychological aspects of aging; and service issues such as residential and day programming.

2. *Aging and Mental Retardation: Extending the Continuum*, by Marsha Seltzer and Marty Krauss, published by the American Association on Mental Retardation in 1987. This monograph presents information regarding national community and institutionally based programs currently serving older mentally retarded persons and points out two models which have proved particularly successful.

3. *Expanding Options for Older Adults with Developmental Disabilities: A Practical Guide to Achieving Community Access*, by Marion Stroud and Evelyn Sutton, published by Paul H. Brookes in 1988. Based on the experiences of Project ACCESS in Ohio, this book guides the reader through strategies used in the process of achieving community involvement by older persons with developmental disabilities. As other books, it also explores issues related to aging and characteristics of older developmentally disabled persons.

Some of the books that offer practical suggestions for activities for older individuals with mental retardation are:

1. *Activities Handbook and Instructor's Guide for Expanding Options for Older Adults with Developmental Disabilities*, by Marion Stroud and Evelyn Sutton, published by Paul H. Brookes in 1988. Developed as a inservice training manual for the above mentioned textbook, this handbook offers suggestions for activities designed to meet specific objectives in the following areas of competence: (a) grooming, (b) health, (c) clothing, (d) social interaction, (e) personal security, (f) community activities, (g) transportation, and (h) leisure & recreation activities.

2. *Over 101... Activities for the Older Person with MR/DD*, by Lori Jones, published by Exploration Series Press in 1987. Describes over a hundred activity ideas for activity and a residential settings. Activities are grouped in four content areas: (a) daily living, (b) socialization and reality orientation, (c) health and nutrition, and (d) physical fitness and maintenance.

3. *Innovative Programming for the Aging and Aged MR/DD Adult*, by Paul Herrera, Published by Exploration Series in 1983. Provides strategies and activities in four major ares: (a) reality orientation, (b) nutrition and health, (c) activity therapy, and (d) sensory stimulation.

Three professional journals have dedicated special issues to the topic of aging and developmental disabilities: (a) *Journal of Educational Gerontology*, volume 14, 1987; (b) *Mental Retardation*, volume 26, 1988; and (c) *Journal of Applied Gerontology*, volume 8, 1989.

## *Visual Aids*

Additional resources such as video tapes are also available, some at no cost, such as *Aging...A Shared Experience*. Produced by the New York State Office of MR/DD, this tape focuses on community opportunities for older adults with developmental disabilities. It can be borrowed from any state mental retardation or aging agency or any state developmental disabilities planning council. Two other audio-visual resources are the videos *I Should Know a Lot, I Been Around Long: Stories of Persons with Mental Retardation Who Have Lived Long Lives* and *It's Never Too Late: Seniors in Special Olympics*, produced by the Kennedy Aging Project of the Shriver Center for Mental Retardation and sold by the Exceptional Parent Press.

# Appendix

*Resources*

| Agency | Contact | About |
|---|---|---|
| RRTC Consortium on Aging/DD<br>University of Akron<br>Project Management Center<br>and Clearinghouse<br>University of Cincinnati<br>University of Cincinnati<br>Project Management Center | 179 Simmons Hall<br>Akron, OH 44325-4306<br>(216) 375-7243<br>(216) 375-7956<br>Dr. Ruth Roberts<br>3300 Elland Avenue<br>Cincinnati, OH 45229<br>(513) 559-4958 | A/DDVANTAGE<br>Newsletter<br>Information<br>Referrals |
| Special Interest Group<br>on Aging/MR<br>Bureau of Aging Services<br>NYS,OMRDD | 44 Holland Avenue<br>Albany, NY 12229-1000<br>(518) 473-7855<br>Dr. Mathew Janicki | Aging/MR IG Newsletter<br>Information Exchange |
| Institute for the Study of<br>Developmental Disabilities<br>Indiana University<br>(Recipient of Training Grant) | 2853 East Tenth Street<br>Bloomington, IN 47408<br>(812) 855-6508<br>Dr. Barbara Hawkins | ADD-TIP National<br>Implementation Project<br>Training Manual |
| Mailman Center for Child<br>Development-University of<br>Miami School of Medicine<br>(Recipient of Training Grant) | 1425 NW, 10 Avenue<br>Suite 200<br>Miami, FL 33136<br>(305) 326-1043<br>Dr. John Stokesberry | Program and Goals for the<br>University Center on Aging<br>and Developmental Disabilities |
| University of Rochester<br>Medical Center<br>University Affiliated Program<br>(Recipient of Training Grant) | 601 Elwood, Box 671<br>Rochester, NY 14642<br>(716) 275-2986<br>Ms. Jenny C. Overeynder | Training Program<br>Aging and DD |
| Waisman Center<br>University of Wisconsin<br>University Affiliated Program<br>(Recipient of Training Grant) | 1500 Highland Avenue<br>Madison, WI 53705<br>(608) 263-5245<br>Dr. Gary Seltzer | Aging and DD<br>Clinical Assessment,<br>Training & Service |
| University Affiliated<br>Program of Developmental<br>Disabilities-University of<br>Missouri at Kansas<br>(Recipient of Training Grant) | 2220 Holmes<br>Kansas City, MO 64104<br>(816) 276-1770<br>Dr. Jerry Cohen | The UMKC Inter-<br>Disciplinary Training<br>Center on Gerontology<br>and Developmental Disabilities |
| Shriver Center<br>University Affiliated Program<br>(Recipient of Training Grant) | 200 Trapelino Road<br>Waltham, MA 02254<br>(617) 642-0101<br>Dr. Harry Beyer | Improving Services for Elderly<br>People who are Developmentally<br>Disabled: Training, Service and<br>Dissemination<br>Graduate Internships |

| Agency | Contact | About |
|---|---|---|
| Montana University<br>University Affiliated Program<br>(Recipient of Training Grant) | Missoula, MT 59812<br>(406) 423-5467<br>Mr. Phillip Wittekiend | Interdisciplinary Training for Professional & Paraprofessional Personnel: A Collaborative Approach to Improve Services for DD Seniors in Rural Areas |
| Gerontological Society of America | 1275 K St.,NW-Suite 350<br>Washington, DC 2005-4006<br>(202) 842-1275 | Membership<br>Special Interest Group |
| American Association of Mental Retardation | 1719 Kalorama Rd., NW<br>Washington, DC 20009<br>1-800-424-3688 | Membership<br>Special Interest Group<br>Seltzer's & Krauss' book |
| Paul H. Brookes Publishing Company | P.O. Box 1100624<br>Baltimore, MD 21285<br>1-800-638-3775 | Janicki's & Wisniewski's book<br>Stroud & Sutton's book |
| Exploration Series Press | P.O. Box 705<br>Akron, OH 44309 | Herrera's book<br>Jones' book |
| Exceptional Parent Press | 1170 Commonwealth Ave.<br>Boston, MA 02134 | books<br>videos |

# Leisure Interests and Perceptions of Group Home Residents

Patricia Barrett Malik, Ph.D.

Group homes have been and continue to be a popular residential alternative for adults with mental retardation. Due to the prevalence and popularity of group homes, a considerable amount of research has been conducted investigating the relationship between the group home environment and the community adjustment of group home residents (e.g., Hull & Thompson, 1980; Schalock & Harper, 1978; Seltzer, Seltzer, & Sherwood, 1982; Schalock & Harper, 1978; Schalock & Lilley, 1986; Sigelman & Bell, 1975; Willer & Intagliata, 1982). However, there is little research addressing the impact of the residential environment on leisure behavior or the perceptions of group home residents concerning their living environment and the quality of their leisure experiences.

Adult residents of group homes tend to be individuals who live in the community yet are actively working on acquiring community living skills for use within and outside their residence. Many have had previous placements at large institutional settings. Adults residing in group homes differ from those with whom a therapeutic recreation specialist (TRS) has previously worked with in large institutions due to the type of skills and resources needed to adapt to living in a community setting. In addition to knowledge of leisure activity skills, the person living in the community also needs related skills such as appropriate social behavior within a leisure activity, knowledge and utilization of leisure resources, and decision-making skills. For example, a group home resident may need to learn how to use mass transportation in order to go to a movie at the mall. This is very different than the TRS showing a movie in the lounge of a large public residential facility.

With the increase of adults with mental retardation living in the community, TRSs, especially those in community recreation programs, would benefit from a better understanding of the leisure interests and perceptions of group home residents. This is an important area of research due to the general lack of opportunity in past research for those with mental retardation to communicate their interests, opinions, and perceptions; normally, caregivers were asked questions about the needs, interests, and preferences of these individuals (Heimark & McKinnon, 1971; Heshusius, 1981; Hull & Thompson, 1980; Schalock & Lilley, 1986; Seltzer et al., 1982; Willer & Intagliata, 1984).

Sigelman, Schoenrock, Bud, Winer, Spanhel, Martin, Hromas, and Bensberg (1983) provided the initial and most comprehensive research on communicating with people with mental retardation. Their results indicate that limitations do exist when using interviews with this population, but interviews are a viable method of data collection with those who are mildly to moderately mentally retarded. Their findings indicate that each question format has its own unique strengths and weaknesses. For example, yes/no questions are easiest for individuals to answer but are subject to respondent acquiescence. Acquiescence is the tendency to answer yes/no questions affirmatively regardless of their content; this is a problem that may invalidate data. Either/or questions are easier to answer than multiple-choice or open-ended questions. However, when using this type of question, interviewers need to be aware whether or not the respondent is consistently answering the first or last alternative mentioned. Finally, when using open-ended questions, validity is enhanced; but the question needs to be structured to provide a reference point for the respondent. The major disadvantage is that open-ended questions yield low responsiveness. Current research in the field of therapeutic recreation has begun to utilize this knowledge on communicating with individuals with mental retardation.

Kleiber, Ashton-Shaeffer, Lee, Hood, and McGuire (1989) used an extensive interview (302 questions) as one method of data collection to determine the impact of Special Recreation Associations on the social integration and adjustment of disabled youth making the transition from high school to the world of work. A variety of question formats was used in this interview. The average inter-rater agreement was 98.1%. The average test-

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retest reliability for all sections of the interview was 71.3%. In addition, Hawkins (1989) designed a structured interview format to measure attributes of leisure behavior and life satisfaction with aging adults with mild/moderate mental retardation and Down's Syndrome. The findings from this study provided useful protocol and question design information. This study found that interviews are best conducted in a private location or room, preferably at a work site. Because caregivers tend to interfere and there is a lack of privacy in the respondents' homes. Respondents also had difficulty answering questions that dealt with frequency of activity involvement; this was a problem encountered by Sigelman et al. (1983) as well. Researchers in therapeutic recreation are only beginning to seriously use interviews for data collection with those who are mentally retarded; much work still needs to be done.

This project was part of a larger observational study focusing on the leisure behavior of group home residents with mental retardation. One of the major criticisms of previous research regarding leisure or group home environments has been the lack of information concerning the perceptions of the individuals who are part of research studies and who are mentally retarded. In order to address this issue, resident interviews were conducted to compile more qualitative information to supplement the observational data. The main purpose of interviewing residents was to investigate residents' perceptions of the quality of their leisure experiences in their home environment.

At the time this study was conducted there was no groundwork in the field of therapeutic recreation regarding the perceptions of individuals who are mentally retarded. The structured interview was designed based on information from Sigelman et al., (1983). This study was exploratory in nature. The information gathered is descriptive and seeks to provide insight into the leisure experiences of people who are mentally retarded rather than provide quantifiable data for statistical testing.

# Method

## *Subjects*

The subjects in this study constitute a convenience sample from group homes within the state of Illinois licensed by the Illinois Department of Mental Health and Developmental Disabilities as Community Residential Alternatives (CRA). A CRA is defined as:

> A group home for eight or fewer developmentally disabled adults who are unable to live independently but are capable of community living if provided with an appropriate level of supervision, assistance and support services....[It] may provide training and guidance to residents in the skills of daily living and shall provide opportunities for participation in community activities....[It] shall not be a medical or nursing facility. (Community Residential Alternative Licensing Act, Ill. Rev. Stat. 1981, Chapter 1, Section 113).

A number of criteria were used to select the subjects. These included the following: (a) informed consent from the resident and/or resident's guardian; (b) a minimum of 18 years of age; and (c) involvement in some type of day program, e.g., day activity, sheltered workshop, job training, etc. Nineteen of the 53 residents who were observed in the first phase of the study (observations) were interviewed during the final phase. These individuals lived in five group homes. The primary criterion for being interviewed, other than informed consent, was possessing the necessary communication skills for answering questions. This judgment was made by the principal investigator who had spent time during the first phase of the study with residents completing observations of leisure behavior. More men (58%) were interviewed than women (42%). The mean age was 32 years and the average IQ score was 53.26. The majority of respondents were classified as mildly mentally retarded (53%), 26% were classified as moderately mentally retarded, and 21% were classified as severely mentally retarded. Subjects were either employed in sheltered workshops (63%) or community job training (37%). Because subjects possessed many cognitive skills, their responses cannot be generalized to the entire population of group home residents.

## *Data Collection*

The overall study used a multi-method approach to data collection; interviews were one part of the study. Resident data were collected through the use of: (a) resident profile, (b) direct observation of resident leisure behavior, and (c) resident interviews.

*Resident profile.* The purpose of the resident profile was to gather demographic information as well as information regarding respondents' personal leisure skills, resources and potential barriers to leisure participation. This instrument was completed by group home staff for each resident. The staff

member who knew the resident best, i.e., provided training programs and spent time with the subject, was responsible for completing this form.

*Observation.* Discussion of the observation phase is important because data from the observations support and clarify respondents' answers to interview questions. Systematic observation was used to study the behavior of residents in the group homes. This technique has been used in a variety of settings to study the behavior of individuals with mental retardation (e.g., Edgerton & Langness, 1978; Landesman-Dwyer, Sackett, & Kleinman 1980).

Time-point sampling was used to collect data (see Figure 1 for example of observation schedule). This technique provided an instantaneous picture of behavior being recorded. According to Sommer and Sommer (1986), time sampling can be described as a procedure where ..."the observer prepares a list of specific times when the person's activities will be charted...At the designated time, the observer notes the person's location and activity...[It] does not require the observer to watch a single subject all the time" (p. 50). A major advantage of time-point sampling is that staff were able to record behavior. A major limitation of this approach is that behavior occurring between sample points is not recorded. However, it was felt that if enough observations could be made of each subject, a representative sample of leisure behavior could be acquired. A total of 87 observations were made for each subject in the study.

Observations began at 3:00 p.m. and ended at 11:20 p.m. on weekdays, and began at noon and ended at 11:20 p.m. on weekends. Observations were recorded approximately every 20 minutes during the sampling period. Information recorded at each observation included: description of the subject's activity, location in the home, others present, and the degree of choice the resident had in participating in the activity. A total of 4,6111 observations were made in this study. Eighteen percent of the observations made by staff were checked for inter-observer agreement which was 84.1%.

*Resident interview.* The entire resident interview consisted of 29 questions. Fifteen of these were closed-ended and 14 were open-ended. The closed-ended questions also allowed for explanation of the answer. For example, one question asked, "Do you play any board or card games? If yes--what? If no--why?" Sixteen questions focused directly on

*Figure 1* Example of an Abbreviated Observation Schedule.

WEEKDAY OBSERVATIONS

Resident Name: _____ Date: _____

| TIME | ACTIVITY | Place | Alone | With Staff | With Peers | With Family | No-choice Mandatory | Choice Staff-initiated | Choice Self/other-Initiated |
|---|---|---|---|---|---|---|---|---|---|
| 3:00 | | | | | | | | | |
| 3:20 | | | | | | | | | |
| 3:40 | | | | | | | | | |
| 4:00 | | | | | | | | | |
| 4:20 | | | | | | | | | |
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| 11:20 | | | | | | | | | |

CODE: LR = Living Room; RB = Resident Bedroom; B = Bathroom; FR = Family/TV Room; BA = Basement; DR = Dining Room; K = Kitchen; CA = Community Activity; OF = Outside/Front yard; OB = Outside/Backyard

WAS TODAY A TYPICAL WEEKDAY IN THE LIFE OF THIS RESIDENT? _____YES _____NO (IF NO, PLEASE EXPLAIN)

leisure and recreation (see Appendix for a list of questions). The interview format was developed based on earlier research by Sigelman et al., (1983) who studied the feasibility of interviewing individuals with mental retardation. Even though their study focused on the feasibility of interviewing individuals with mental retardation, many of their questions dealt with recreation and leisure. Some of the questions from their study were also used in the present study.

Questions which focused on "activities" did not address community activities because the focus of this study was on home environment and leisure behavior. Activities in the interview, e.g., listening to the radio, watching TV, and looking at books, were included because of prevalence in previous observational studies and on the advice of the caregivers (Edgerton & Langness, 1978; Heimark & McKinnon, 1971; Willer & Intagliata, 1984). These were also activities which would be observed during the first phase of the study and could serve to validate respondents' answers.

The interview format and questions were pilot tested with group home residents who had characteristics similar to the study sample. Due to the pilot study, questions which residents had difficulty understanding were reworded. The organization and format were also revised slightly in order to keep the attention of the residents.

Interviews were scheduled at each resident's convenience, and each resident had the option to be interviewed alone or with a staff member present. Each person decided to be interviewed alone. All interviews were conducted by the principal investigator. Approximately 30-45 minutes were needed to complete an interview. This amount of time did not present a problem for the majority of the residents interviewed. However, some individuals had difficulty finishing the interview due to their short attention span and easy distractibility.

Reliability concerns revolve around the extent to which answers can be considered stable indications of respondents' needs, circumstances, and attitudes (Sigelman et al., 1983). One way which reliability can be approached is through readministering the same questions after a brief interval of time, (i.e., test-re-test) and determining the consistency of responses on both occasions. Another method is to determine the consistency of responses on alternate form questions within the same interview. The alternate form was utilized to establish reliability of responses in this study. Alternate forms of two questions out of 16 were asked within the same interview and found to have a reliability of .84. This is an adequate level of reliability; however, if time had been available, a better and more stringent measure of reliability would have been consistency over time. Because numerous observations of the respondents were made by the interviewer before the interviews were conducted, there is confidence in the reliability of the responses.

Interviews place a high reliance on the validity of responses. Response validity means that the responses to interview questions accurately portray the actual behavior or attitudes of the person interviewed (Sigelman et al., 1983). One method of increasing the confidence of respondents' answers is through between-method triangulation. With this study, between-method triangulation was accomplished by comparing responses from interview questions with previous observations of respondents' leisure behavior, and with written leisure profiles of all respondents completed by group home staff. There was concurrence between responses on the interview and with observations and profiles.

## Results

### *Leisure Awareness*

At the time this study was conducted there was no groundwork for measuring the leisure perceptions or leisure awareness of individuals with mental retardation. Respondents' general awareness of leisure and their perceptions of who makes decisions in their lives were examined to better understand individuals' perceptions of their leisure experiences. Residents were asked if they had heard of the words leisure or recreation. If they had heard of these terms, they were asked to describe them. Seventy-five percent of the individuals had never heard of the word leisure. Twenty-five percent had heard of the word but, for the most part, were not able to define it. Two individuals had a definition which included a component of being by yourself. One individual said that leisure was "having time to yourself" and the other individual said it was "when you are out by yourself."

Sixty-three percent of the respondents had never heard of the word "recreation". For those who had heard of the term, recreation was described as (a) activities, e.g., "swimming," "activities--go places;" (b) time and freedom, e.g., "what you want to do in your spare time, or "free time, to do stuff;" and, (c) feeling/experience, e.g., "pleasure" or "go out and have fun."

This information is not only helpful in

understanding the awareness of individuals with mental retardation concerning the terms leisure and recreation, but it will also be helpful in formulating questions in future studies in such a way that the majority of individuals can understand. Since most respondents had never heard of the terms recreation and leisure, questions needed to be structured in terms of what they did for "fun" and "enjoyment."

### *Leisure Interests and Perceptions*

When asked what they liked to do for fun when they are alone, the answers were as varied as the individuals interviewed. Some of the answers were: "listen to music," "watch TV," "put on make-up," "look in scrap book," "read Bible," "go for walks," "just sit around," "look at magazines," and "clean room." Even though a variety of activities were named by the respondents, observations completed during the first phase of the study did not show as much variety in activities. When individuals were alone (usually in their rooms) they were usually watching television (16.6% of the observations) or sleeping (11.8% of observations).

When asked what they like to do when they are with friends, respondents said they like to "visit with friends," "watch TV," "go to the mall," "talk," "play sports," and "go to the movies." Some individuals have good friends whom staff encouraged them to visit. For example, one resident had a sheltered workshop friend who lived in an apartment complex which had a swimming pool. He would go over on a Saturday or Sunday afternoon to visit, to go swimming, and to dine together. A small number of respondents (3) had close intimate relationships. Going out on dates was an important aspect of their lives. They enjoyed talking about this significant other with their peers and the staff and in the interview process.

The respondents answered five questions which, though narrow in scope, focused on in-home leisure activities. These activities were chosen for two reasons. First, the overall study focused on home environment and leisure behavior; therefore, it was deemed necessary to use home-based leisure activities in the interview as well. Second, previous studies with group home residents have shown passive activities to be most prevalent (George & Baumeister, 1981; Sigelman & Werder, 1978; Willer & Intagliata, 1982). Forty-two percent of the respondents listened to the radio on a daily basis, and all respondents watched television on a daily basis. When asked how often they listened to the stereo, 42% said "sometimes" (about once a week) and 42% said "never". The majority of respondents (79%) also looked at books, magazines, and/or newspapers either on a daily or weekly basis. When asked whether they played table games and/or card games, 53% of the respondents said they did, 37% said they did not, and two individuals were unable to answer the question. Popular games among this group of individuals included checkers, Uno, Yahtzee, and Trouble. Even though residents said they played these games, there was little evidence during observations that they played these games often. Many times they played when the game was initiated by a staff member.

Two questions were asked to determine an individual's interest in learning a new activity which one could do for fun. This was asked in two different ways. First they were asked, "Is there something you would like to do for fun but don't?" Forty-seven percent of the respondents said "yes" to this question; however, there was no clustering of responses in terms of *what* they wanted to do. Some of the reasons for not pursuing the desired activity focused on resources. For example, one individual wanted to watch TV in his room but he did not have a TV. Some reasons focused on skills. For example, one individual wanted to be able to count money and another wanted to learn how to drive a car.

The same type of question in a different form was asked at the end of the interview; it elicited different responses. The question was "If someone like me were to come here and teach you a new activity that was fun, what would you like to learn?" Once again, the type of responses was varied. They included the following suggestions "how to sew," "count money," "knitting," "crocheting," "any kind of sport," "play checkers and Uno," "learn how to read," "read newspaper and books." Three individuals said they would like to learn how to read.

Another general question was asked to determine how much residents felt they made decisions about what they do. The two questions were "Who decides what you do when you get home from work?" and "Who decides what you do on weekends?" The majority of respondents (68%) said that staff decide what they do on weekdays after work. The decision making was more mixed when it came to the weekends. Forty-two percent of the respondents said they decide on weekends, 32% said staff decide, 21% said both they and the staff decide, and one person (5%) had difficulty answering the question. Thus, most residents perceive staff as deciding what they do, especially on weekdays.

A final question relating to leisure asked

respondents to think back to the week before the interview and state the most fun thing they did, who they were with, and where they were. Seven of the individuals (37%) could not remember what they had done. Others, however, mentioned shopping, playing sports, visiting with relatives, going fishing, and going to a dance. All of the activities mentioned were done in the community. The majority of individuals participated in the activity with residents and staff from the group home. This supports the observational aspects of the study which showed that many leisure activities were done in the community (18.7% of the observations) and usually with other residents. Subjects have some friends outside the group home; the friends tend to be people they have met through their work setting. However, they tend to spend their time with other residents.

The final question of the interview was very general. It asked "What makes you happy?" The majority of answers tended to cluster in a category that could be called "being with other people." Some of the responses were "staff and residents," "girlfriend," "funny people," "people telling jokes," "staff here," and "having friends." The other category was work. Three individuals said that their work made them happy. Finally, one person reported "good things make me happy. I can't exactly explain."

## Discussion

The purpose of this study was to investigate group home residents' leisure interests and perceptions. Within the fields of mental retardation and therapeutic recreation there is a trend in recent research to include direct input from subjects with mental retardation (e.g., Bostwick & Foss, 1981; Hawkins, 1989; Kleiber & Malik, 1988; Lovett & Harris, 1987). This study adds new knowledge and reinforces what is already known about adults with mental retardation.

The first important finding was the general lack of understanding surrounding the terms leisure and recreation. This has implications for researchers and practitioners. For researchers, this means careful use of these terms or replacing them with parallel phrases. For example, "What do you like to do for fun?" or "Describe what makes you happy" or other similar questions may need to be used in future research projects with this group. However, this study is limited in scope and further research is needed in this area. It is important that practitioners be aware of the potentially limited knowledge participants may have regarding the terms leisure and recreation. They cannot assume the individuals they work with have a clear understanding of terms. This provides a possible area for program development; a component of a leisure education program which focuses on knowledge and awareness of leisure and recreation could be added to the program.

Probably the most important topic which surfaced during the interviews was the importance of friendships and social interaction with others. Relationships with others is a very important part of their lives; therefore, it is important that they have sufficient opportunities to develop and maintain friendships within the home, work, and leisure environment. Community recreation programs need to provide opportunities encouraging and facilitating the development of friendships and social interaction. In addition to facilitating social interaction, TRSs in community settings need to actively assist those with mental retardation to gain and/or improve their current social skills through programs that directly address appropriate behavior and social skills for community living. Generally, the more refined social skills people possess, the more they may interact with those in and outside the home environment.

A second item of interest which resulted from resident interviews was that this group seems to want to learn "adult skills" e.g., reading a newspaper, driving a car, counting change. An interest in learning skills which are age-appropriate fits the principle of normalization, and means that TRSs may need to critically look at what programs are being offered in community recreation for adults with mental retardation. Are they oriented toward traditional recreation program areas such as sports and arts and crafts? Are the majority of programs offered segregated, specialized programs within community settings? This study suggests that even though residents enjoy being in the community for recreation participation, they would like to learn some leisure skills which are more home oriented. In addition, some want to learn skills outside the realm of therapeutic recreation programs, for example counting money. Therapeutic recreation programs could be developed and implemented to encourage the use of these related skills, thus increasing generalizability and practice using the skill.

Another important aspect of this study deals with the feasibility of interviewing adults with mental retardation. Adults with higher cognitive function (mild to moderate mental retardation) can and

should be asked questions concerning their opinions, attitudes and perceptions. This is especially true in discussing leisure and recreation. If perceived freedom or choice is an important element of the leisure experience (Ellis & Witt, 1984; Kelly, 1982; Neulinger, 1981), it is important to know how these individuals perceive themselves and their environments as well as what their choices are; this is not information that can best be gathered from caregivers alone. It is also important for professionals providing recreation programs to solicit program evaluation feedback from participants. It is possible to gather this information from the majority of individuals with mental retardation and should be actively pursued in community recreation programs.

The information gained from this study provides insight into the lives of individuals with mental retardation. They have some problems which may be different from other people, but overall they are more alike than different from their same-age peers. Practitioners and researchers should recognize the potential of using interviews as a source of gathering valuable information in order to better understand people with mental retardation.

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# Appendix

## *Interview Questions*

### *Knowledge of Leisure*

1. Have you ever heard the world leisure? If yes, what do you think the word leisure means?
2. Have you ever heard the word recreation? If yes, what do you think the word recreation means?

### *Leisure Interests and Perceptions*

3. What do you do with other people in the group home?
4. What do you do for fun when you are alone? (something you enjoy)
5. Think back to last week. Tell me about the most fun thing you did last week, or tell me about something you did last week that you liked. What? With whom? Where?
6. Is there something fun you wish you could do but don't? If yes, why?
7. What do you usually like to do when you are with friends?
8. How much do you listen to the radio? (a lot, sometimes, never)
9. How much do you listen to the stereo? (a lot, sometimes, never)
10. How much time do you read/look at books, magazines or newspapers? (a lot, sometimes, never)
11. Do you play any board games/card games? If no, why? If yes, what?
12. Do you watch TV? If no, why? If yes, what is your favorite TV program?
13. If someone like me were to come here to teach you a new and fun activity, what activity would you like to learn?

### *General Personal Information*

14. Who decides what you do in the evenings after work?
15. Who decides what you do on the weekends?
16. What makes you happy?

# The Relationship Between Recreation Participation and Functional Skill Development in Young People With Mental Retardation

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The purpose of this paper is to explore the potential impact of involvement in organized special recreation programs on the functional skills and adaptive abilities of young adults with mental handicaps. As individuals with disabilities leave the supportive and structured environments of public schools and other public and private institutions, they must have at least a modest repertoire of basic skills to function effectively within the community. Being able to address others and elicit information, being able to take care of one's basic needs such as eating and grooming, and being able to identify and utilize community services and even contribute to society in the world of work are minimal expectations of young adults living in society.

Certainly schools and specialized training programs contribute to the development of such skills, but they must be practiced in non-instructional contexts to be ultimately useful in an individual's life. The assumption to be tested here is that participation in social activities that are recreational in nature, and thus likely to be psychologically engaging, will also have an impact in these skill areas.

Ideally, a study such as this would follow a group of individuals over time to see if changes in their experiences led to changes in their abilities. Unfortunately, this requires a longer period for research than is generally available. An attractive alternative is to employ recreation programs as an experimental manipulation, testing the effects at the end of the program. But short-term attempts to do that (Anderson & Allen, 1985; Anderson, Grossman, & Finch, 1983) have met with only modest success, leading the investigators to propose much longer periods of intervention. While the investigation to be described used neither an experimental nor a longitudinal design, it examined activity over an extended period of time in an attempt to associate variations in activity involvement with the degree of adaptive ability and functional skills currently in evidence.

Of course this approach will continue to beg the question of causality, but that question can also be addressed with available information from other sources. There is at least some evidence that appropriate use of leisure skills and available free time have a positive influence on the adaptation to normal living environments of individuals with mental retardation.

Participation in leisure activities has been shown to be related to skill development in individuals with mental retardation in childhood (Newcomer & Morrison, 1974) and in adulthood (Schleien, Kiernan, & Wehman, 1981; Wehman, 1977). In a couple of other studies, leisure education exercises were found to contribute to social interaction and the acquisition of social skills in such individuals (Cheseldine & Jeffree, 1981, 1984). It has even been suggested that a factor in *failing* to adjust to community living may be the lack of awareness of recreation resources and the inability to use those of which one is aware (Luckey & Shapiro, 1974).

The evidence for the influence of recreation activities is not always clear, however. Is it the activity itself or merely the interaction with others that makes a difference? Does choice matter? How critical is feedback from supervisors, coaches, etc.? Theoretically, leisure is important to the well-being of people more generally by virtue of the opportunity to make personal choices, the opportunity to interact with others in noncoercive ways, and the emotional value of enjoyment (Kelly, 1983, 1987; Kleiber & Kelly, 1980). Furthermore, it has been suggested that leisure, as both activity and as discretionary time, may have particular therapeutic benefits for helping individuals adjust to

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the stresses associated with difficult transitions (Kleiber, 1985). Leaving the security of the school environment, which often is accompanied by departing the parental home as well, is certainly such a transition, and this is the age group of interest in the present investigation. The focus of this paper is on skill development rather than adjustment, but the acquisition and appropriation of adaptive skills becomes the foundation upon which other forms of developmental progression occur (cf. Havighurst, 1953). Being able to function independently within the larger society is both necessary to adult development and critical to the process of normalization that has become the goal for services for persons with disabilities and handicaps (Wolfensberger, 1972).

Wolfensberger (1972) goes as far as to suggest that instruction in the use of community recreation facilities should be an essential component of longitudinal planning for the severely handicapped. Joswiak (1979) notes that developmentally disabled persons "can, to some extent, develop a greater awareness of leisure, of the meaning of free time and play, and of leisure resources in the home and community. They do learn of leisure resources and do begin to engage in or request varied activities utilizing these resources" (p.2). Furthermore, self-directed involvement in active, community-based recreation activities is itself a strong indicator of social integration (Kregel, Wehman, Seyferth, & Marshall, 1986). Some have even sought to shape the content of community integration training programs based on the domestic, community and recreation skills required for success in post-school environments (Snell, 1983; Wilcox & Bellamy, 1982). But the link between recreation skills and subsequent adaptation and skill development has not been clearly established. We will look here at the evidence for an impact in three areas: social and communication skills, personal living skills, and community living skills.

### *Recreation Involvement and Social and Communication Skills*

The development of recreation skills and social involvement has been advocated as a way to enhance social skills (Keogh, Faw, Whitman, & Reid, 1984; Luckey & Shapiro, 1974; Wehman, 1977). In one of the earliest studies of recreation skills and social interaction, Mitaug and Wolfe (1976) used puzzles to investigate social interaction and determined that task interdependence increased the level of social interaction and verbalization. Jeffree and Cheseldine (1984) found that once basic recreation skills (as used in construction and board games, books, and puzzles) had been acquired by adolescents with mental retardation, not only did their level of activity increase, but their interaction with classmates did as well. In a study of persons with severe mental handicaps, Vandercook (1987) observed that as persons became more proficient in two specific leisure skills (bowling and pinball) their social repertoire also became more sophisticated. Keogh et al. (1984) used three commercially-available table games with four adolescent boys with severe mental retardation to support previous findings that after being trained in game skills, verbal behavior increases during dyadic interaction and free play.

These reports are inconsistent with those reviewed earlier (Anderson et al., 1983; Anderson & Allen, 1985) where recreation interventions failed to have any impact on patterns of social interaction. But rather than reject the assumption that participation in social recreation is inherently conducive to generalized social competence, it is important to point out again that the interventions in the latter studies where short-lived. Furthermore, they dealt with adults rather than adolescents. Perhaps these variations in findings are attributable to developmental differences or still some other contextual factor.

Regardless of the individual processes involved, social leisure skills are probably important in the development of individuals with mental retardation because of the roles these skills play for even a modest level of community integration (Karlan, 1980). Social leisure skills are important for participation in activities which are dependent on dyadic or group interaction or designed specifically to introduce people to one another (Ashton-Shaeffer, 1988; Crandall, 1979). Social leisure skills would also appear to be essential to the ability to form and maintain friendships. Reiter and Levi (1980) suggested that a lack of friends is a barrier to successful integration of adults with mental retardation and leads to isolation and withdrawal. In spite of this important need, most leisure activities of adults with mental retardation take place in the home and are passive and solitary in nature or family-oriented with little opportunity to make or be with friends (Kregel et al., 1986).

### *Recreation Activity Involvement and Community Living Skills*

By community living skills in the current investigation, we mean the ability to get places on

time, to be able to value and use money effectively, to know one's way around the community, and to be able to take available work roles. It is at least conceivable that active recreational programming might have an impact on some of these things. In fact, leisure and social activity components of service programs have been shown to relate to the ability of people with disabilities to maintain their independence in the community (Bruininks, Meyers, Sigford, & Lakin, 1981; Edgerton, 1967; Hill, Rotegard, & Bruininks, 1984).

It may be argued that skills *permit* more extensive involvement in recreation activities and *determine* access to recreational resources. In one study comparing group home and foster home residents with a matched group of adults who were well integrated into the community, the latter had significantly higher levels of participation on 14 of 19 leisure activities (Aveno, 1989). For two activities (walk or hike or stroll in wheelchair for pleasure and enjoyment and day activities outside residence) ratings indicated group home and foster home residents had more involvement. No significant differences were found for swimming, bowling or attendance at parties or dances. While this is an example of a study that suggests that the skills and resources may produce the activity rather than vice versa, an interaction is also implied whereby skill development affords activity which in turn facilitates further enhancement of skills.

### *Recreation Activity Involvement and Personal Living Skills*

By personal living skills, we are referring to those patterns that allow a person to maintain oneself relatively independently and to be able to be reasonably presentable in the wider world. While there is little to say from the literature, one can speculate that the incentive to participate in group programs may lead to greater attention to personal appearance and deportment. In some cases, too, the preparation of meals is done recreationally, in a supper club for example. And the emphasis on physical skill development in some programs may contribute directly to the coordination needed for other tasks. In one study (Crain, McLaughlin, & Eisenhart, 1983), a dance program served that purpose.

### *Research Questions*

This investigation was directed toward answering the following questions: (a) Does participation in organized recreation programs relate to higher levels of functional skills in the areas discussed above? and (b) Does greater participation overall and in specific types of activities relate to higher levels of skills in certain domain areas?

## Method

### *Subjects*

The parents or caregivers of all 216 participants between the ages of 19 and 28 in four special recreation associations in Illinois were solicited for involvement in this study. The caregivers of 116 of this group agreed to complete a behavioral checklist, and 106 of this group were labeled, both by caregivers and the special recreation associations, as having some degree of mental retardation (the remainder being physically or sensory impaired only). Forty-nine were males, and 57 were females. Of the 106, 50 were labeled as having mild mental retardation while the remaining 56 were regarded as having either moderate or severe mental retardation. The subjects had a mean age of 23.5. All had completed their involvement in public education.

### *Special Recreation Associations*

The Special Recreation Association (SRA) is an approach to programming for individuals with disabilities that is particularly unique to the State of Illinois. Designed for the purpose of overcoming such barriers as financial limitations, low incidences of certain special populations, and the inability to acquire adequately trained staff, SRAs were formed as independent cooperatives of two or more neighboring park and recreation districts. The first SRA was established in 1967 and presently there are 18 such cooperatives in Illinois. Their purpose is to provide an immediate social "space" for individuals who have not been able to access other recreational services because of their disability, while at the same time seeking to provide such persons with the skills to utilize a wider range of normalized leisure alternatives in mainstreamed settings (Keay, Kendrigan, Reiner, & Sternfeld, 1976). SRA programs typically include a range of programs from sports, games, handicrafts and other forms of active recreation to leisure education with an emphasis on resource identification, value clarification and decision-making.

### *Procedures*

*Data Collection.* Caregivers and parents of the subjects were identified and contacted by the staff of the four SRAs. Parents and caregivers were sent the *Inventory for Community and Agency Planning* (ICAP) (Bruininks, Hill, Weatherman, & Woodcock, 1986) which assesses functional skills in the areas of communication and social skills, personal living skills and community living skills. On the ICAP, caregivers rate each item on a scale from 0 (nonaccomplished) to 3 (well-accomplished). For example, for the skill "Locates or remembers telephone numbers and calls friends on the telephone", caregivers indicated whether the subject does the task completely without help or supervision: never or rarely, even if asked (0); does, but not well and may need to be asked (1); does fairly well most of the time but may need to be asked (2); or does very well without being asked (3). Scale scores were computed from the total of the item scores in each of the three areas: social and communication skills (19 items), personal living skills (21 items) and community living skills (19 items).

The internal consistency of the Inventory ranges from .89 to .93 for the three scales across three levels of disability. The scale's test-retest reliability ranges from .88 to .95. With respect to validity, the three domains of interest are consistent with the findings of research on the structure of adaptive behavior (Coulter & Morrow, 1978; Holman & Bruininks, 1985; Meyers, Nihira, & Zetlin, 1979). Bruininks et al. (1986) report significantly lower adaptive behavior scores in a group of adults with psychiatric disabilities attending a sheltered workshop and a group of adults with mild mental retardation than for a nonhandicapped comparison group. The Woodcock-Johnson Cognitive Ability Measure (Woodcock & Johnson, 1977) correlated highly with the ICAP measures: .70 for personal living skills, .76 for social and communication skills, and .82 for community living skills. With a group of moderate to severely retarded adults in resident and day programs, the Scales of Independent Behavior correlated .94, .90, and .90 with those three scales respectively.

Program involvement data for participants in SRA programs were obtained from agency records for three different years: 1978, 1983, and 1987-88. Number of hours of involvement were then calculated for each of six activity categories for each of the three years. Those categories were: recreation participation, expressive activity, physical activity, competitive skill activity, leisure education activity, and camp activity. (See Appendix for details). Interrater agreement for the classification of each activity program, established with one of the investigators and a research assistant, averaged 94.4%. Intensity of activity involvement was calculated by the number of hours spent in a category as determined by the activity's primary and secondary classification.

*Data Analysis.* T-tests were employed to compare the mean scores on each of the three functional skill areas for SRA participant and norm groups. (The norms for the mildly retarded were derived from a group of 26 males and 22 females between the ages of 13 and 34 in special education programs in Minneapolis-St. Paul and southern Illinois. The norms for the moderate to severely retarded were derived from 51 males and 43 females in the same age range from Minneapolis, southern Illinois and central California [Bruininks et al., 1986].) In addition, correlations were computed between skill scores and the amount of overall participation and the amount of participation in each of the activity categories over all three years.

## Results

Table 1 indicates the mean scores on each of the skill domains for SRA participant and norm groups. As can be seen, the SRA participant group with mild retardation is significantly higher than the matched norm group on social and communication skills (503.68 vs. 489.16, $p<.02$), on personal living skills (519.92 vs. 504.17, $p<.01$), and on community living skills (519.4 vs. 495.69, $p<.001$).

Data on the moderate to severe subsamples indicate much the same picture. Those involved in special recreation programming were significantly higher than the norm group of the same level of disability on social and communication skills (483.64 vs. 454.55, $p<.001$), personal living skills (508.58 vs. 473.22, $p<.001$) and on community living skills (495.75 vs. 454.66, $p<.001$).

Examining the participation patterns of the two groups of participants shows very little relationship between extent of involvement and functional skills (see Table 2). Where there are significant correlations, if not the result of chance alone, a negative relationship is indicated. It would appear that for those with mild retardation, more participation in physical activity is associated with more limited functional skills and that for those with moderate to severe retardation intense involvement with leisure education and camping activities is

Table 1
*Comparison of Participants' Scores with Norms on ICAP Measures of Functional Skills*

| | Participants | | Norms | | |
|---|---|---|---|---|---|
| Functional Skills | M | SD | M | SD | t |
| Social and Communication Skills | | | | | |
| Mild | 503.68 | 32.8(n=50) | 489.16 | 26.2(n=48) | 2.416 * |
| Moderate/Severe | 483.64 | 34.5(n=56) | 454.55 | 31.7(n=94) | 5.259 *** |
| Personal Living Skills | | | | | |
| Mild | 519.92 | 27.1(n=50) | 504.17 | 23.7(n=48) | 3.059 ** |
| Moderate/Severe | 508.58 | 22.8(n=55) | 473.22 | 21.0(n=94) | 9.662 *** |
| Community Living Skills | | | | | |
| Mild | 519.40 | 28.8(n=50) | 495.69 | 22.9(n=48) | 4.501 *** |
| Moderate/Severe | 495.75 | 32.2(n=55) | 454.66 | 29.9(n=94) | 7.910 *** |

* p<.02 ** p<.01 *** p<.001

Table 2
*Correlations of Functional Skills with Degree of SRA Program Involvement*

| | SRA Activity | | | | | | |
|---|---|---|---|---|---|---|---|
| Functional Skills | Total Activity | Recreational | Fine Motor | Gross Motor | Competitive | Leisure Education | Camping |
| Social and Communication Skills | | | | | | | |
| Mild | .06 | .07 | -.01 | -.26* | -.05 | .17 | .10 |
| Moderate/Severe | -.04 | .02 | -.14 | .02 | .13 | -.11 | -.09 |
| Personal Living Skills | | | | | | | |
| Mild | -.05 | -.04 | .07 | -.19 | -.11 | .03 | .02 |
| Moderate/Severe | -.11 | .01 | .01 | -.14 | .06 | -.14 | -.21 |
| Community Living Skills | | | | | | | |
| Mild | -.14 | -.04 | -.17 | -.46** | -.03 | -.01 | -.09 |
| Moderate/Severe | -.22 | -.11 | -.14 | -.14 | .01 | -.23* | -.29* |

* p<.10 ** p<.001

associated with more limited community living skills. Taking the group as a whole, those with higher community living skills were less likely to be as involved with physical activities and camping activities than those with lower skills.

## Discussion

The group differences reviewed suggest that extended involvement in SRA programs may have contributed significantly to the functional skill development of individuals with varying degrees of mental retardation. This, of course, would be a strong case for more extensive utilization of such programming since the adaptive skills studied here are so important to the well-being of those living in the community. But interpretation must be exercised with some degree of caution. These are not longitudinal data nor are they the result of an experimental intervention; therefore, the question of causation still remains. It is certainly a reasonable argument that, despite attempts to match the subject population to the norms, the former were higher functioning to begin with, thus allowing them to be able to participate more extensively in recreation programs. (But it should be noted that our attempts to find similarly disabled individuals in the area who were not SRA participants uncovered very few, suggesting that nearly all of the people at these levels of retardation were involved to some degree with the SRA in a given area.)

The correlational data presented would appear to support the "selection" argument; the fact that there were no significant positive correlations would indicate there was no real advantage to having higher degrees of involvement in the programs. Also, the fact that lower functioning individuals showed more involvement in certain kinds of recreation programming would run counter to the suggestion that the more involved in such programs one is, the higher will be the level of skill developed. Quite the opposite might be inferred here. A more likely interpretation, however, is that those who stayed most involved in the programming needed it the most, while higher functioning individuals may have become independent enough to move on to other things that did not require active participation in programs.

Nor should it be concluded that programs only select for high functioning individuals to begin with, contributing nothing to skill development. It is conceivable that general involvement in SRA activities shapes and reinforces adaptive skills in the course of participation that allow one to operate relatively independently and attend structured programs less and less over time. Evidence from caregivers perceptions of program impacts (Kleiber, Shaeffer, Lee, & Hood, 1989) has suggested as much.

Certainly some of these possibilities can be sorted out more effectively using experimental designs and field intervention studies. As was noted earlier, the studies (Anderson et al., 1983; Anderson & Allen, 1985) which utilized experimental designs to test the effects of recreation programming for mentally retarded adults showed only modest effects and concluded that more long term interventions were needed. The results of the current investigation should be regarded as encouragement to undertake more extensive investigations that implement long-term programs with careful attention to ongoing and systematic evaluation and the measurement of change in adaptive behavior over time.

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# Appendix

## SRA Recreation Program Content Classifications

### Recreation Participation

***Activity Focus***: Actual involvement in an activity (shopping, games, crafts)

***Social Interaction Focus***: Parties, dances, etc.

***Spectator Focus***: Watching sports, movies, performing arts, sightseeing, museums, etc.

***Weekend or Overnight Special Events and Trips*** (other than camps)

### Expressive Activity

***Activity Skill Development***: Handicrafts, cooking, crafts, needlework, nature activities, plant care, table games, art, music, drama, dance

### Physical Activity

***Activity Skill Development***: Physical activities, sports, active games, dance, activities, non-competitive focus

***Functional Skill Development*** (other than social): Basic gross motor skills, self-control, functional skills for leisure involvement

***Fitness and Health Programs***: Endurance, strength, flexibility, nutrition, hygiene, grooming, health and safety, first aid, etc.

### Competitive Skill Activity

***Competitive Skill Development***: Organized teams and leagues, inter-agency and intra-agency competition, tournaments, Special Olympics

### Leisure Education Activity

***Social Interaction Skill Development***: Primary focus on learning social skills

***Leisure Resource Development***: One-time versus indepth exposure to activities where the participant actually participates in the activities rather than spectating, may be a combination of different types of activities such as crafts, sports, music, etc.

***Leisure Awareness Development***: Discussion regarding meaning and/or benefits of leisure and recreation. Choice, decision making and/or planning (actual discussion of or involvement in planning of activities)

### Camp Activity

***Day Camp and Overnight Camp*** (one night or more)

# Automating A Community Resource Directory: An "Information Age" Tool for Discharge Planning

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Short-term psychiatric hospitalization has become the typical norm of the 1980s as a result of insurance reimbursement for inpatient treatment being curtailed to a maximum of 30 to 90 days. The impact on therapeutic recreation has been significant and has resulted in the need for careful scrutiny of the philosophy, goals, and objectives of individual treatment and discharge planning.

Therapeutic recreation specialists at the Sheppard and Enoch Pratt Hospital in Baltimore, Maryland, are dealing with such self examination and accompanying issues. Traditionally, therapeutic recreation services have followed a long-term, comprehensive continuum model. Now they have modified their program to include a comprehensive discharge planning system that can be extended into the post-hospital phase of treatment. The aim of short term treatment is to treat the acute crisis in a patient's life so he or she may resume major life activities within the community and be provided with resources that give stability and structure to his or her routine.

The patient's abbreviated length of stay often precludes the opportunity for leisure education through recreational participation. Instead, the leisure rehabilitation component must include an educational approach that emphasizes utilization of community resources to maximize the patient's potential for a satisfying, self-directed, socio-leisure lifestyle. Variations in the aftercare needs of specific patient populations make it necessary for all clinicians involved in the patient's care to collaborate with the patient in developing a plan that will support gains made during hospitalization. Helping a patient implement these plans requires transposing newly acquired skills from hospital services to community based services or "treatment extenders."

## Community Resource Directory and File

The Community Resource Directory and File (CRDF), a computer based referral system, was developed to facilitate a hospitalized patient's transition into the community after discharge. The automated system is intended for use by clinicians and patients, in both the pre- and post-discharge planning process. This system is consistent with the requirements of the Joint Commission on Accreditation of Healthcare Organizations (1989) relating to discharge planning and patient transition to the community in the least restrictive environment. It involves the therapeutic recreation specialist (TRS) in the locus of responsibility for each step in this process.

The development of a resource directory and file is a logical computer application which may be of great benefit to TRSs primarily because it is easy to develop using general application database software such as Versaform, dBase III+, or PC-File III(R). The great versatility of these programs is what makes them so useful. The examples are all database programs which allow for ease in constructing, updating and maintaining a resource file as well as manipulating the data in the file in a multitude of ways.

The model directory and file developed at Sheppard and Enoch Pratt Hospital was designed using a database program called "Versaform;" but there are many other programs which are adequate for accomplishing the same tasks. All true database programs can be compared to an "electronic file cabinet." The primary advantage an automated program has over a manual filing system is the speed with which the information in the database file can be sorted (even selectively sorted), retrieved and printed in a format entirely different from the original entry format (Davis, 1989; Popyk, 1988; Price, 1985). For example, if a community recreation resource directory has 1,000 records, each

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containing information about specific types of recreation programs and facilities, several minutes are involved in manually locating those resources that offer indoor swimming facilities or, more specifically, indoor swimming facilities within a known zip code area. Organizing and copying that information for patient reference takes several more minutes. However, the speed of an electronic database allows sorting and organizing to be accomplished in seconds.

As in a file cabinet, information in a database is stored in what is called a record. Each record is made up of discreet pieces of information called fields. A field can be compared to blank lines on a form into which information is typed or written (Davis, 1986). The record has ten fields in which to categorize agency services which meet patient aftercare needs. These include educational activities, health services, information and referral, legal resources, leisure learning experiences, social service programs, support self-help groups, transportation, vocational rehabilitation services, and volunteer and community resources.

Other fields hold agency names, addresses and telephone numbers. There is also a memo field which is simply a field designed to hold short textual messages or descriptions of services provided by the agencies in the database. Once all of the information for a particular agency is entered into a record, it is stored in the database. This allows simple retrieval and manipulation of the information in order to create a wide variety of lists, reports or other printouts.

## Method

Consider the case of an elderly female patient, living alone on a fixed income, who does not practice good nutritional habits without supervision and who does not drive but can use public transportation. The person is well educated and enjoys educational activities as well as volunteering. Assuming that the primary leisure need for this individual is resource guidance, a TRS may wish to provide a list of schools, social service programs or agencies offering congregate meals and educational programs that are on a public transportation route. The TRS may also want to create a list of places where the person could become a volunteer. To sort through a very extensive resource file manually for such selective information would be time consuming; however, selective sorting from an automated database is a simple three-step process which requires only a few seconds to complete.

First, the therapist enters the names of the fields for a desired set of information. In the case of the elderly patient just described, the therapist might select fields called "Social Service Programs" and "Volunteer" for the purpose of choosing resources. For the purpose of providing the patient with a usable set of information, the fields of "Address," "Phone" and "Zip Code" would be selected.

Once the necessary fields have been determined, the computer provides the therapist with the option of printing a list of all the resources in the file where social service programs or volunteer opportunities exist, or to retrieve a "selected" set of resources which would be more useful to a patient. In the case of the elderly patient, it might not make sense to provide her with a listing of all the resources in the file if she is from a large urban area because she does not drive and must rely on public transportation. In selecting resources that are as close to the patient's home as possible, the therapist might select only those agencies which are within the same zip code area as the patient's home.

The third step in the process is to print the selected information. Generally, this is the most time-consuming step. Yet, from beginning to end, the amount of time required for all three steps would be less than four minutes.

The compendium of resources available to the patients encourages a role of responsibility and independence in making and implementing discharge plans. Armed with accurate information concerning available resources in the community, patients are empowered with the opportunity to make effective decisions for life outside the structured hospital setting.

### *Updating the Directory*

Anyone who has developed a directory of community leisure resources is familiar with the problems associated with such a project. The identification of resources is very time consuming as is assembling all of the information into a logical, useable format. But perhaps the greatest obstacle, and the one which causes most projects to be abandoned, is updating the directory once it has been established. This process is not only time consuming but usually requires complicated wordprocessing or massive retyping, restructuring, etc.

One of the most desirable reasons for automating such a resource directory is the fact that updating an electronic file is a much simpler process. It is

simple enough that a volunteer with ten minutes of training can complete the entire process.

A database program can easily handle the problems which one often encounters in the update process. Several of these are as follows:

1. *Adding New Resources to the Directory.* Leisure services in most communities are always expanding or changing. With a database system any new information can be added quickly. Once a new record is complete, the entire file can be automatically sorted, re-alphabetized and indexed in any number of ways.

2. *Deleting Information from the Directory.* As information in the data file becomes obsolete, it can be deleted easily. With a few keystrokes, a single piece of data such as congregate meals can be deleted or an entire record can be erased. This invaluable feature helps to insure the continued accuracy of existing information in the directory.

3. *Creating Mailing Labels.* As a database increases in size, the speed of the updating process can be greatly improved by mailing a copy of each data record to resources included in the directory, asking them to check for accuracy, and having them return the corrected record. The database software can be used to generate mailing labels from the agency name and address fields contained in each record. If there are enough records in the database file to allow for bulk mailing, the tedious job of sorting each piece to be mailed can also be greatly diminished by electronically sorting all of the labels by zip code before printing them.

Sheppard and Enoch Pratt Hospital's resource directory is a useful tool for identifying agencies and organizations that accept self-referring clients. By contacting a listed resource, a patient can make inquiry regarding specific programs and request brochures covering all services offered. The directory is a reference and is not intended to be an endorsement of the quality of services offered by any agency or organization contained in the database.

## Conclusion

Because of patients' short length of stay, TRSs have less time for duties necessary to prepare for patients' discharge. The directory now online at Sheppard and Enoch Pratt Hospital has helped to streamline the duties of the TRSs. Patients are now able to obtain useful information designed to help them make the transition from hospital to community. Recreation or other human service agencies are thereby able to serve many of those who would have gone unnoticed or, perhaps, may have even returned to clinical treatment because of inadequate knowledge of support services in the community.

The microcomputer is a powerful tool which therapeutic recreators have yet to fully utilize (Ferguson, 1984). An automated community resource file is a natural application of desktop technology, and has the potential for helping TRSs become efficient in their use of time and precise in their use of community resources tailored to meet their patients' specific discharge planning needs.

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